```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic - nucleic search, using sw model
                     O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    on:
                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB DB
                                                      Score
  45.6
44.4
43.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0 seq length: 2000000000
                                 48
                                                  Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           January 15, 2004, 06:13:46; Search time 20:4 Seconds (without alignments) a869.310 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                      US-10-084-843-46
327
                                                                                                                                                                                                                                                                                                                                11:
12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22781392 seqs, 12152238056 residues
  14.7
13.9
13.6
13.6
                                                                                                                                                                                                                                                                                                                                                              .0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCACGAGAGCCGATGCC.....TACGAAAAGAAACGAAAACGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                                             gb_est1:*
gb_est2:*
                                                                                                                                                    em_gss_phg:*
em_gss_vrl:*
gb_gssl:*
gb_gss2:*
                                                                                                                                                                                                                           em_estom:*
em_gss_hum:*
em_gss_hun:*
em_gss_pln:*
em_gss_vrt:*
em_gss_fun:*
em_gss_mam:*
                                                                                                                                                                                              em_gss_mus:*
em_gss_rod:*
                                                                                                                                                                                                                                                                                                                                                                                                                   em_estov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                         em_esthum: *
em_estin: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                            em_estba:*
                                                                                                                                                                                                                                                                                                                                        gb_est2:*
gb_htc:*
gb_est3:*
                                                                                                                                                                                                                                                                                                                                                                                     em_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                em_estmu:*
                                                                                                                                                                                                                                                                                                          em_esttun:*
                                                                                                                                                                                                                                                                                                                    5_est4:*
5_est5:*
                                                                                                                                                                                                                                                                                                                                                                                                estro:*
                                                                                                                                                                                                                                                                                                                                                                                                          estpl:*
  1203
925
640
450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
   29
29
29
                                                       ij
  CNS015YR
CNS0091P
CA035945
BZ627973
                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45562784
AL106077 Drosophil
AL053013 Drosophil
(A035945 4002249 B
BZ627973 ih56h08.b
                                                     Description
                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                              RESULT 1
CNS015YR
LOCUS
                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                იიი
                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ດດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 0
```

i	Д.	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	80	7	σ	5
	٥	9	9	9	9	39.6	9	9	9	9	40	40	40	40.2	•	•	40.6	•	٠	40.8	•	41.2	•	•	•	41.6	•	41.8	41.8	41.8	41.8	41.8	4			٠	43.2	•	u	43.4	43.8
	J	'n			2	12.1		ν.		Ν.	۶.	٥.		'n	٥.	٥.	٥.	2	٧.	٧.	٥.	٥.	2	Ν.	2	N	2	12.8	N		2	N	N		w.	·	ω.	u	Ü	w	ω
	1060	969	847	809	596	385	972	705	668	488	607	414	354	398	438	415	984	769	425	664	584	. 863	699	494	472	968	839	810	752	686	594	493	1201	1000	1101	749	515	636	531	523	N
,	ပ္	29	14	29	10	ø	13	14	14	9	14	9	14	10	14	14	13	12	10	10	13	10	14	10	φ	13	29	14	14	14	14	9	13	13	29	14	13	13	14	14	
	75645	BZ555001	926	ū	48	36	94	597	26		7	269	4016	241	A9519	8	BQ900926	Ħ	BE654967	BF473402	0486	BF623307	CB451983	BF624408	5878	BU501143	004N			CB679538	ص ا		<i>.</i> n	$\overline{}$	တ	6295	X424	U6470	62696	6224	<b>F-3</b>
<b>q</b>					BF254867 HVSMEf000	AA243878 zr65g01.s	BX349463 BX349463	CB635974 OSIIEb16P	CD262188 psMA015x,7	AA620979 af88g08.s	CA377056 655542 NC	AU162697 AU162697	W74016 zd02d05.rl	WS1_50_H	iq17;	CB869514 HC11J05w	BQ900926 AGENCOURT	BI156802 602921432	BE654967 UI-M-BHO-	BF473402 WHE0924 A	вовочев мнез559 н	BF623307 HVSMEa001	06802 M	BF624408 HVSMEa001	AA505878 ni01a07.s	BU501143 AGENCOURT	AL054280 Drosophil	CB648132 OSJNEb11G	CB657645 OSJNEC13C	CB679538 OSJNEf03C	CB671388 OSJNEe04P	AU225606 AU225606	BX356664 BX356664	BX407619 BX407619	Dr	B629564	24977 BX4	U647014	26968	622445	28

DEFINITION JOURNAL ORGANISM Direct Submission

Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage:

BP 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr

BP 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr

- Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk -. This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre Library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1203) fly), genomic survey sequence. AL106077 AL106077.1 GI:5619907 GSS. CNS015YR 1203 bp DNA linear GSS 26-JUL-1999 Drosophila melanogaster genome survey sequence SP6 end of BAC BACN1510 of DrosBAC library from Drosophila melanogaster (fruit Genoscope.

ALIGNMENTS

O

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
CNS0091P/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNT
                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                        - Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.orp The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoggawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's Pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1111 CRMACRMGVMCAMGASSCACSMGGCGRGMGGCRSARGMGSGAGMGGRMGAGMRSAS 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        991 AGGGGRRGGCGCSSSCGCCCVAGMSRSAMGARVRGGGSGSSSSSCSSGCGRVGMSAGCAG 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Similarity
57; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CNS0091P 925 bp DNA linear GSS 03-JUN-1999 Drosophila melanogaster genome survey sequence TET3 end of BAC # BACR19D16 of RPCI-98 library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pBeloBAC11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL053013.1 GI:4934461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RMVAAVACRSGGGSGMGCGCRCGSAGAVGGCRSAVGASSRGCGCGMGRVVGAGMRMRAGM 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCGACGAGGAG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAGCAGGAACTCGACG 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGGACGGCCG 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 925)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone lib="DrosBAC"
/plasmId="pBeloBAC11"
/note="end : SP6"
a 192 c 162 g 1
/organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="texon:7227"
/db_xref="BARR19D16"
/clone="BARR19D16"
/clone lib="RPCI-98"
/note="end : TET3"
                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DN
/db_xref="taxon:7227"
/clone="BACN15E12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 48;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0.099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              337 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                        segref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
CA035945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48;
                                                                                                                                                                     Tel: 301 504 8416
Fax: 301 504 8414
Email: tads@lpsi.barc.usda.gov
Email: tads@lpsi.barc.usda.gov
Single pass sequencing. Bases called and trimmed with phred
0.000925 using options -trim alt '-trim fasta. Vector identified
by cross match using options -minmatch 12 -minscore 12
Plate: 83 row: G column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                     Quackenbush, J. Analysis of bovine mammary gland EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4002249 BARC SBOV Bos taurus
                                                                                                                                                    Seq primer: TGAGCGGATAACAATTTCACACAG
                                                                                                                                                                                                                                                                                                        USDA, ARS, Beltsville Agricultural Research
Bdlg. 200 Rm 2A, Beltsville, MD 20705, USA
                                                                                                                                                                                                                                                                                                                                           Contact: Sonstegard TS
                                                                                                                                                                                                                                                                                                                                                                                                     Mamm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CA035945.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CA035945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CA035945
                                                                                                                                                                                                                                                                                                                                                                12140684
                                                                                                                                                                                                                                                                                                                                                                                                                         the Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bos taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASCGMMCGKSKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGAAACGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                    quality sequence stop: 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative 135;
                                                                                                                                                                                                                                                                                                                                                                                                   Senome 13 (7), 373-379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ø
                   /organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/clone="5BOV_83G24"
 tissue_type="pooled"
                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:24334559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA
                                                                                                                                                                                                                                                                                                                                                                                                     (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                          and
```

```
14 CGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAA 73
                                            1 (bases 1 to 640)
Sonstegard,T., Capuco,A.V., White,J., Van Tassell,C.P., C., Cho,J., Sultana,R., Shade,L., Wray,J.E., Wells,K.D. and
                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SSSGGRSSGSGGGGGGGGSGSSSGGSGSGSGCMCRCSCSSAAAAAASCVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCSSVASSMSCSSBSSSASASSSSSSSSSASCASCSCCCTSWSCSCSTSASMSAARSSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAA 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGC 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGMABCCMCSSSSSCCGSASARGVKVRASGGAGKRGGGSGGASASHSSSSACBSSSSSCS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SSSSCSSSMSASSSASSSSASSSSSSSSSSSACGBSMSSGGGSGSVSASSGMSSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA linear
clone 5BOV_83G24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       511 others
functional annotation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                             ์
รุ
                                                                                                                                                                                                                                                                                                                                                                                  EST 24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,,</u>
                                                                         Connor, E.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 4
BZ627973/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            114;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                               Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rabinowicz,P.D., O'Shaughnessy,A.L., Balija,V., Nedhia,N., Katzenburger,F., King,L., Miller,B., Muller,S., Nascimento,L., Zutavern,T., Palmer,L., McCombie,W.R. and Martierissen,R.A. Genomic shotgun sequences from Sorghum bicolor (methyl-filtered)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.

1 (bases 1 to 450)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ih56h08.bl WGS-SbicolorF genomic clone ih56h08 5',
                                                                                                                                                                                                                                                                                                                                     Plate: ih56 row: h colu
Seq primer: -21M13UnivFwd
                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 516 367 8884
Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sorghum bicolor (sorghum)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BZ627973.1 GI:27780058
                                                                                                                                                                                                                                                                                                                                                                            Email: mccombie@cshl.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGAGAAGCGGGCCCAGGCCGGAAGCCCTGAAGGAGCATGTG
                                                                                                                                                                                                                                                                                                                     lass: shotgun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAAGCGGCGGGAGCAGCGGCTGCGGCTGACCAAGCTGCAGCAGGAGCGGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCGGCGGGCCGAGGCCCTCGACGCCCTGGACAAGGCCCAGCCCAGCTACAGGCCT

        AGTGGCGGCGGCGGCGGAGGCCGCGCGGCGGCGCGCGCTTCCAAGAAGCAG

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCCGGCCTACATCCAGAACGAGCACAGCTACCAGGTGGGCAGCGCCCTGCTCTGGA
                                                                                                                                                                                                                                                                  quality sequence stop: 465.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab host="DH10B"
/clone lib="BARC 5BOV"
/clone="Vector: pCMV SPORT6; Site 1: NotT; Site 2: SalI;
/inbrary made from pooled mRNA isolated from mammary
tissues at eight physiological, developmental, and disease
states."
  /clone lib="WGS-SbicolorF (DH5a methyl filtered)"
/note="Site 1: Xba I; Site 2: Xba I; The vector was
digested with Xba I and one nucleotide was added by fill in
in the recessive 3' end. The genomic DNA was nebulized,
end repaired, adaptor ligated and size fractionated using
sephadex. The resulting fragments were between 0.8 and 3
                                                                                                                                                                        /organism="Sorghum bicolor"
/mol_type="genomic DNA"
/db_xref="caxon:4558"
                                                                                                                                                          clone="ih56h08"
                                                                                                                                   lab_host="DH5a"
                                                                                                                                                                                                                                                  .450
hadex. The resulting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244 C
                                                                                                                                                                                                                                                                                                                                                            column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 44.4; DB Pred. No. 0.69; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       210 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            450 bp DNA linear GSS 17-JAN-: (DH5a methyl filtered) Borghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indel.s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lengt:h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSS 17-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

S 밁 S Ś

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
BZ628314/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
ORIGIN
                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122 GTGGCGCGGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       209 CGACGCCGTGGGGAAGGAAGGGCGAGACGGACTCGGCGTGGCAGCAGGGCAGGACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     182 CAATAAGCAGAAGCAGGAACTCG 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 CGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claue, Function (27)

1 (bases 1 to 627)

1 (bases 1 to 627)

Rabinowicz, P.D., O'Shaughnessy, A.L., Balija, V., Dedhia, N., Rabinowicz, P.D., O'Shaughnessy, A.L., Balija, V., Dedhia, N., Ratzenburger, F., King, L., Miller, B., Muller, S., Nascimento, Katzenburger, F., King, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., Palmer, L., McCombie, W.R. and Martienssen, R.A. Zutavern, T., McCombie, W.R. and Martienssen, R.A. Zutavern, M. Zutavern
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ih59c08.bl wGS-SbicolorF (DH5a methyl filtered)
genomic clone ih59c08.5', genomic survey server
BZ628314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sorghum bicolor (sorghum)
Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       High quality sequence stop: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lita Annenberg Hazen Genome Sequencing Center Cold Spring Harbor Laboratory
PO Box 100, Cold Spring Harbor, NY 11724, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoldeae; Andropogoneae; Sorghum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plate: ih59 row: c colu
Seq primer: -21M13UnivFwd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: 516 367 8884 Fax: 516 367 8874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: W. Richard McCombie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BZ628314.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: mccombie@cshl.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genomic shotgun sequences from Sorghum bicolor (methyl-filtered)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .ass: shotgun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAGGAGGAGAAGTACGTACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45
                                 76
                                                                                    /clone_lib="WGS-SbicolorF (DH5a methyl filtered)"
/note="Site 1: Xba I; Site 2: Xba I; The vector was
digested with XbaI and one nucleotide was added by fill in
in the recessive 3' end. The genomic DNA was nebulized,
end repaired, adaptor ligated and size fractionated using
sephadex. The resulting fragments were between 0.8 and 3
kb and were cloned into the vector (.x/y reads in M13mp19,
b/g reads in pUCl9). The same ligation was transformed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kb and were cloned into the vector (.x/y reads in M13mp19, .b/g reads in pUC19). The same ligation was transformed into DH5a."

187 c 132 g 86 t
                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Sorghum bicolor"
/mol_type="genomic DNA"
/db_xref="taxon:4558"
/clone="ih59c08"
                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH5a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GI:27780399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 43.8; DB Pred. No. 0.91;
                                 155 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            627.
                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dedhia, N., Nascimento, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ar GSS 17-JAN-2003
Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

Query Match

13.4%;

Score 43.8;

BB

29;

Length

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
CB622445
LOCUS
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                             밁
                                                        S
                                                                                                                                                         BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                            Matches
                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 56.0 Matches 81; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122
                             123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      534 CGACGCCGTGGGGAGGAAGGGCGAGACGGACTCGGCGTGGCAGCAGGGGCAGGACGT 475
                                                           30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
                                                                                            89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota, Viridiplantas, Streptophyta, Embryophyta, Tracheophyta;
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                       BACKWARD: gga aac agc tat gac cat g
Plate: 09 row: C column: 13
Seq primer: gta aac cga cgg cca gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arizona Genomics Institute
University of Arizona
Biological Sciences West,
85721-0088, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jantasuriyarat,C., Lu,G., Gowda,M., Hatfiel, Kudrna,D., Dean,R., Soderlund,C., Wing,R. as Large-scale identification of ESTs involved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CB622445 523 bp mRNA linear EST 08-APR OSIIEa09C13.f OSIIEa Oryza sativa (indica cultivar-group) cDNA clone OSIIEa09C13 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 520 626 3967
Fax: 520 621 9288
                                                                                                                                                                                                                                                                                                                                                                                                                                         FORWARD: gta aaa cga cgg cca gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: http://genome.arizona.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              between rice and Magnaporthe grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CB622445.1 GI:29617433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAATAAGCAGAAGCAGGAACTCG
GTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGGGACGGCCGCC 149
                              GCGATGGCCGCCGAGAACTACTGGAGGTTCTCCGACGCGCGGCAGCAACAGGCCTTGGTG
                                                             GCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAAAACCCCAGATCGACCAG 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGCGCGCGCGCGGGACGGCCGCCCAGGCCGCGGTGCTGCCGCTTCCAAGAAGCAGC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAGGAGGAGAAGTACGTACACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 523)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRimers
                                                                                            Conservative
                                                                                                                                                                        99
                                                                                                                                                                                                                                /db_xref="taxon:39946"
/clone="OSITEa09C13"
/ti88ue_type="Leaf"
/dev_stage="3_week"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                              organism="Oryza sativa
/mol_type="mRNA"
/cultivar="IR36"
                                                                                                                                                                     /clone lib="OSIIBA"
/note="Vector: Bluescript II KS
KhoI; Lesion Mimic SPL 11"
160 c 184 g 80 t
                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                               . 5.2
                                                                                                         13.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Institute
                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                          Score 43.4; D
Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 0.96;
0; Mismatches
                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  448A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P.O. Box 210088,
                                                                                                                                                                                                                                                                                                                                              (indica
                                                                                                                          멾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hatfield, J., Zhou, B., Mazur, E., ing, R. and Wang, G. involved in the interaction
                                                                                            76;
                                                                                                                         14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62;
                                                                                                                                                                                                                                                                                                                                              cultivar-group) "
                                                                                                                                                                                                     .
                                                                                            Indels
                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                     Site_1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tucson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST 08-APR-2003
                                                                                            0;
                                                                                                                                                                                                     EcoRI; Site_2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΑZ
                                                                                            0
                                 밁
                                                           Ş
                                                                                             밁
                                                                                                                          Ś
                                                                                                                                                         밁
                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
```

```
RESULT 7
CB626968
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
                                                                                                                                                                                                                                                                               BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                Matches
                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                             150
                                                                                                                                112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           183
                                                                                               90
                                                                                                                                                                 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  University of Arizona
Biological Sciences Wes
85721-0088, USA
Tel: 520 626 3967
Fax: 520 621 9288
                                                                                                                                                                                                ; 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trach
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CB626968
OSIIED01J05.f OSIIED Oryza sativa (indica cultivar-group)
clone OSIIED01J05 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between rice and Magnaporthe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jantasuriyarat, C., Lu, G., Gowda, M., Hatfield, J., Zhou, B., Mazu Kudrna, D., Dean, R., Soderlund, C., Wing, R. and Wang, G. Large-scale identification of ESTs involved in the interaction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CB626968.1 GI:29621957
EST.
                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BACKWARD: gga aac agc tat gac cat
Plate: 01 row: J column: 05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FORWARD: gta aaa cga cgg cca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arizona Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: http://genome.arizona.edu
                             CAGGCCGCGCTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGCCGCGCGCATGCCCCCCCGCAGGCCGCCATGGCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGCCGCGCTGCGCCTTCCAAGAAGCAGCCAATAAGCAGAAG
CAGGCCGCGGCGCATGCCCCCCCCAGGCCGCCATGGCGCAGCAG
                                                                GTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGACGGCCGCC
                                                                                                                                GCGATGGCCGCCGAGAATTACTGGAGGTTCGCCGACGCGCCGCCAGCAGCAGCCATGGTG
                                                                                                                                                                 GCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAAAACCCCAGATCGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 531)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer: gta aaa cga cgg
                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                              /db_xref="taxon:39946"
/clone="0SIIEb01J05"
/tissue_type="Leaf"
/dev_stage="13 week"
/lab_host="DH10B"
/clone_lib="0SIIEb"
/note="Vector: pBluescript II KS +; Site_1: EcoRT;
xhoI; 24 hrs after innoculation with Rice_Blast (PO_a_162 c_192 g_78 t_1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                    cultivar="IR36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Oryza
mol_type="mRNA"
                                                                                                                                                                                                               13.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       West,
                                                                                                                                                                                                0
                                                                                                                                                                                                                 Score 43.4;
Pred. No. 1
                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       448A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sativa (indica cultivar-group) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cca gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     grisea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Box
                                                                                                                                                                                                                                 14;
                                                                                                                                                                                                76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210088,
                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                 Length
276
                                194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tucson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 08-APR-2003
                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tracheophyta;
                                                                                                                                                                                                                                                                                                   RI; Site 2: (PO6-6-3)"
                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΑZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mazur, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                 231
                                                                                                  149
                                                                                                                                   171
                                                                                                                                                                  89
                                                                                                                                                                                                   0
```

```
RESULT 8
BU647014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                Ś
                                                                                                                                                        밁
                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                            105 GGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGACGGCCCACGCCCACGCCGCGGTGGTG
                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                          116;
                                                                                                                                                                                                                                                                                                                45 AATTTCGAGCGGATCTCCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 636)
Grossman, A., Chang, C.-W., Davies, J., Harris, E., Hauser, C., Lefebv, P., McDermott, J.P., Shrager, J., Silflow, C. and Stern, D. Analyses of the Chlamydomonas reinhardtii Genome: A Model, Unicellular System for Analyzing Gene Function and Regulation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence.
BU647014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Duke University
Durham, NC 27708-1000
Tel: 919 613 8159
Fax: 919 613 8177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chlamydomonas reinhardtii Eukaryota; Viridiplantae; Chlorophyta; Chlorophyceae; Volvocales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BU647014 636 bp mRNA linear EST 30-SEP-2002 1112055B09.yl C. reinhardtii CC-1690 (mt+), CC-1691 (mt-), Gamete (normalized), Lambda Zap II Chlamydomonas reinhardtii cDNA, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vascular Plants. Project: 1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chlamydomonas reinhardtii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BU647014.1 GI:23359194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: chauser@duke.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chlamydomonadaceae; Chlamydomonas.
CGTCAGGCCGGCGTCCAATACTCGAGGGCCGACGAGGAGCAGCAGCAGCAGGCCGTGTCC 281
                                                                                                      CGCTTCCAAGAAGCAGCCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATT 224
                                                                                                                                                             GACCCCGGCCGCCAGCAGCTGTTCGTGGAGGTGGTGGCGAGCTGCAGCTGCAGGCG
                                                                                                                                                                                                                                                                 AAGTGGGAGCAGTTCCGGGCGGACCTGCCGCGACGACCCCCAGCCTGGAGGCGGTGGCG 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Box 91000
                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone lib="C. reinhardtii CC-1690 (mt+), CC-1691 (mt-), Gamete (normalized), Lambda Zap II"
/note="Wector: pBluescript II SK-; Site 1: EcoRI; Site 2: XhoI; Gamete library was constructed by Hui Zhao, Min Lu, yeffrey McDermott, William J. Snell and John Davies.
Strain 21gr cells (CC-1690; mating type plus) and strain 6145c cells (CC-1690; mating type minus) that had been growing on a light-dark cycle (13:11 L/D) in R-medium (Sager and Granick) were separately transfered into nitrogen-free medium at 8 hours into the light period.
PolyA mRNA was purified from each sample every 2 hours for the next 18 hours. The mRNA was pooled and used for cDNA synthesis. The cDNA was directionally cloned into lambda Zap II (Stratagene) in the EcoRI (5') and XhoRI (3') sites. pBluescript II SK- plasmids were excised from the lambda ZAP clones by superinfection with ExAssist (Stratagene) phage. The library was normalized using method 4 described in Bonaldo et al., (1996) Genome Research 6: 791-806."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Charles Hauser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Chlamydomonas reinhardtii"
/mol type="mRNA"
/strain="21gr (CC-1690 wild type mt+) & 6145c (CC-1691
wild type mt-)"
/db_xref="taxon:3055"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                   13.3%;
                                                                                                                                                                                                                                                                                                                                                                     Score 43.4; D
Pred. No. 1.2;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                         DB 13;
                                                                                                                                                                                                                                                                                                                                                                       121;
                                                                                                                                                                                                                                                                                                                                                                                                                         Length 636;
                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lefebvre
                                                                                                                                                             458
                                                                                                                                                                                                               164
                                                                                                                                                                                                                                                                                                                                                                       0
```

```
RESULT 9
BX424977
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                       RESULT 10
CB629564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                        밁
                                                                                                                                                         Ś
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
    DEFINITION
                        rocus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                  352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                   152 GGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAGCAGGAACTCGACGAGAT 211
                                                                                                                                                             272 GGCGCTGTCC 281
                                                                                                                                                                                                                                        212 CTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCGACGAGGAGCAGCAGCA 271
                                                                                                                                                                                                                                                                                                                                                              CB629564 749 bp mRNA linear EST 00 OSIIEb05014.f OSIIEb Oryza sativa (indica cultivar-group)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CLOBA005ZH04FP1&cluster=6304.f. Contact
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitrogen.Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: seqref@genoscope cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 6304.f For
more information about this cluster, see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1. (bases 1 to 515)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BX424977 Homo sapiens PLACENTA Homo 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BX424977.1 GI:30784421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                        CGCGAGCCCACCGTCCACCACCAGCACGTGGGCGCTGGTGCGCAAGGCCGTGTCC
                                                                                                                                                                                                     GGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGGACGGCCCCA 151
                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Avenue Genoscope sequence ID : CLOBA005ZH04FP1.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="CLOBA005ZH04"
/tissue type="PLACENTA"
/clone Tib="Homo sapiens PLACENTA"
/clone Tib="Homo sapiens PLACENTA"
/clone Tib="Homo sapiens PLACENTA"
/note="Vector: pCMVSPORT 6; 1st strand cDNA was primed
/note="Vector: pCMVSPORT 6; 1st strand cDNA was digested with Not I and cloned into
double-strand cDNA was digested with Not I and cloned into
the Not I and EcoRV sites of the pCMVSPORT 6 vector.
Library was not normalized."

22 c 56 g 173 t 220 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organism="Homo sapiens"
|mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             db_xref="taxon:9606"
                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                              13.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                           98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 43.2; D. Pred. No. 1.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens cDNA clone CL0BA005ZH04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                           70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                        EST 08-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST 15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
    CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           575
                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
ACCESSION
VERSION
KEYWORDS
                                                                                               RESULT 11
CNS017SY
                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                    Ś
VERSION
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
               ACCESSION
                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                    446
                                                                                                                                                                                                                                      386
                                                                                                                                                                                                                                                                        197
                                                                                                                                                                                                                                                                                                         326
                                                                                                                                                                                                                                                                                                                                           137
                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                                                                                                                                                              77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oryza sativa (indica cultivar-group)
Oryza sativa (indica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
                                   CNS017SY
Drosophila melanogaster genome sur
BACN37L08 of DrosBAC library from
                                                                                                                                                                                                                                                                                                                                                                                                                                                99,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone OSIIEb05014 5', mRNA sequence
CB629564
CB629564.1 GI:29624553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arizona Genomics Institute
University of Arizona
Biological Sciences West, 448A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BACKWARD: gga aac agc tat gac cat g
Plate: 05 row: O column: 14
Seq primer: gta aaa cga cgg cca gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jantasuriyarat, C., Lu, G., Gowda, M., Hatfield, J., Zhou, B., Mazu Kudrna, D., Dean, R., Soderlund, C., Wing, R. and Wang, G. Karge-scale identification of ESTs involved in the interaction
               fly), genomic survey AL108460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Rod Wing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FORWARD: gta aaa cga cgg cca gtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: http://genome.arizona.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between rice and Magnaporthe grisea
                                                                                                                                                                                                    CGAGGAGCAGCAG
                                                                                                                                                                                                                                                           GGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCGA 256
                                                                                                                                                                                                                                                                                                         CGACATCGAGGAGCTGGAGCGCCGCATGTGGCGCGACCGCGTCCGGCACAAGCGGCTCAA
                                                                                                                                                                                                                                                                                                                                           GGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAGCA 196
                                                                                                                                                                                                                                                                                                                                                                             CGAGGGCGACCTGGTCAACCCGGCGCCGCCGCCGCAGCAGCAGCAGGTGCACGAGGG 325
                                                                                                                                                                                                                                                                                                                                                                                                           CCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGCGC 136
                                                                                                                                                                    GGAGCTTCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 749)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           520 626 3967
520 621 9288
                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db xref="taxon:39946"
/clone="OSIIED05014"
/tisue_type="Leaf"
/dev_stage="3 week"
/lab_host="DH10B"
/clone_lib="OSIIEb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Oryza sativa
/mol_type="mRNA"
/cultivar="IR36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'note="Vector: pBluescript II KS +; Site_1: EcoRI; Site_2:
(hoI; 24 hrs after innoculation with Rice Blast (PO6-6-3)"
198 c 285 g 104 t
GI:5628764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              13.0%;
                                                                                                                                                                    458
                                                                                                                                                                                                      269
                              sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 42.6;
Pred. No. 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cca gtg
                                                              p DNA linear GSS 26-JUL-1999
survey sequence SP6 end of BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P.O. Box 210088,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (indica
                                               Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                              94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cultivar-group) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tucson,
                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΑZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mazur, E.,
                                                                                                                                                                                                                                          445
                                                                                                                                                                                                                                                                                                         385
                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
KEYWORDS
SOURCE
ORGANISM
               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                 RESULT 12
BX407619
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                  KEYWORDS
                                                                                                                                                     VERSION
                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                rocus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                       887
                                                                                                                                                                                                                                                                                                       947
                                                                                                                                                                                                                                                                                                                                    265
                                                                                                                                                                                                                                                                                                                                                                                                        205
                                                                                                                                                                                                                                                                                                                                                                                                                                         827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        145 CCGCCCAGGCCGCGCGTGCTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAGCAGGAACTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25
                                                                                                                                                                                 BX407619
BX407619
5-PRIME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
52; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         - Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
               Mammalia; Eutheria; Primate
1 (bases 1 to 1000)
Li,W.B., Gruber,C., Jessee,
Full-length cDNA libraries
                                                                                                 Homo sapiens
                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pBeloBAC11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (23-JUL-1999) Genoscope - Centre BP 191 91006 EVRY cedex - FRANCE (E-mail:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genoscope
                                                                Bukaryota; Metazoa; Chordata;
Mammalia; Butheria; Primates;
                                                                                                                  Homo sapiens (human)
                                                                                                                                                   BX407619.1
                                                                                                                                                                   BX407619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct
                                                                                                                                                                                                                                                                                                     AGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATACGAAAAGAAA 319
                                                                                                                                                                                                                                                                                                                                                                                                      ACGAGATCTCGACGAGTATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCGACGAGGAGC 264
                                                                                                                                                                                                                                                                                                                                                                                                                                       MSKVASAVASCSAVASGMSAGAVSSSCRSSVASSVSAAASVSSSVSSSSSSSVVSAAAVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGACGG 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAKMACCSSSSASSSGSSCASTSSSASRGGMVSSCACSGSGSGSASACGASGAGGGSGR 766
                                                                                                                                                                                                                                                                                                                                                                     ASSSASSASMAVAAAAAVAVSSVSVASVVSSSSSCSSSSSASVVVSASVAASASSVSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGSGCCASSGVCGAACSSASCSSASMCGVSSGSSCSASCGSCCGVSSCSAVSASSASSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAAAACCCCAGATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db xref="taxon:7227"
/clone="BACW37L08"
/clone lib="DrosBAC"
/plasmid="pBeloBAC11"
/note="end : SP6"
                                                                                                                                                                                  mRNA
                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Drosophila m/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                   GI:30762809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13.0%;
                                                                                                                                                                                                  1000 by
                                                                                                                                                                                  sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125;
                                  Jessee, J. and Polayes, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 42.6;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                   and
                                                                                                                                                                                                                   å
                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                      Homo
                 normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              melanogaster"
                                                                                                                                                                                                    mRNA 1
o sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 National de Sequencage 
seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1101;
                                                                                                                                                                                                    linear EST 15-MAY-2003
s cDNA clone CS0DE005YI19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           826
                                                                                                                                                                                                                                                                                                                                                                         946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                           886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
BX356664/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                                       /ERSION
                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    203 CGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCGACGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             143 GGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAG(AGAAGCAGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201 bp mRNA linear EST 05-MAY-200
EX356664 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA
clone CSODI015YB03 3-PRIME, mRNA secuence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSOAS005ZD02QP1&cluster=6789.f. Contact
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSOAS005%D02QP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 6789.f
more information about this cluster, see
Genoscope - Centre National de Sequencage
BP 191 91006 ENRY cedex - France
Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact: Feng Liang Email: filargelifetech.com |
http://fulllength.invitrogen.com/ Invitroden Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIO15CA02NP1.
                                                                                                                               Unpublished
Contact: Genoscope
                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                     BX356664.1 GI:30378083
                                                                                                                                                                                                                                                                                                                                        BX356664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCAGCAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SSVAVSSSVSSSSSSSSSSSRASSSSSSSSSVRVVVVAAAVAAVSSGGSSGSSSGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  226
                                                                                                                                                                                                                                                                                  sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="PLACENTA"
/clone_lib="Homo sapiens PLACENTA"
/clone_lib="Homo sapiens PLACENTA"
/note="Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned the Not I and EcoRV sites of the pCMVSPORT 6 vector.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Library was not normalized."
205 c 283 g 57 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
[mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone="CS0DE005YI19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . .1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Centre National de Sequencage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42.2; D
Pred. No. 2.6;
39; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ė,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 13; Length 1000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      229 others
                                                                                                                                                                                                                                                                                                                                                                                              EST 05-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                For
                                      URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
AU225606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29
```

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1176 SSSSSSSVSSVAAAAAAASATVVAAAAAASAASSSSSSVVVSSSAAASSSSSSAAAVVAAA 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 269 GCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                               Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Eukaryota; Viridiplantae; Streptophyta; Em
Spermatophyta; Magnoliophyta; Liliopsida;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 493)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AU225606 AU25606 Oryza sativa Koshihikari pistil Oryza sativa (japonica cultivar-group) cDNA clone KP3-0582, mRNA sequence.
                                                                                                                                                                              1515 Kamihama, Tsu, Mie 514-8507, Japan
Tel: 81-59-231-9515
Fax: 81-59-231-9515
                                                                                                                                                                                                                                                                                                           Expressed Sequence Tags Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AU225606.1
EST.
                                                                                                                                                                                                                                                 Mie University
                                                                                                                                                                                                                                                                    Faculty of Bioresources
                                                                                                                                                                                                                                                                                           Contact:
                                                                                                                                                                                                                                                                                                                                                                                 Tsuchiya,T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSVSVATSSSAAAAAASSAAVSASSSSSVSSAAAAASVSSSSVAAVVSAVAAAAVVSSSS 1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCCGCCGGCGGCGACGGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGAGGGCCCGACGAGGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGGCCGCGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAGCAGGAACTCGACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAAAACCCCAGATCGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                       tsuchiya@bio.mie-u.ac.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue type="PLACENTA COT 25-NORMALIZED"
/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="1st strand cDNA was primed with a NotI-oilgo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized.

88 c 93 g 398 t 506 others
                                                                                                                                                                                                                                                                                           Tohru Tsuchiya
/mol_type="mRNA"
/cultivar="Koshihikari"
/db_xref="taxon:39947"
/clone="KP3-0582"
                                                                   /organism="Oryza sativa
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="CSODI015YB03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                                                                             .493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:24208579
                                                                                                                                                                                                                                                                                                                                                                                 Ando, A., Ogawa, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches 115;
                                                                                                                                                                                                                                                                                                                                       Pistil of Oryza
                                                                                                                                                                                                                                                                                                                                                                                 Futagami, K.,
                                                                                        (japonica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Embryophyta; Tracheophyta;
a; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1201;
                                                                                          cultivar-group)
                                                                                                                                                                                                                                                                                                                                          sativa cDNA Library
                                                                                                                                                                                                                                                                                                                                                                                   Watase, T. and Kowyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148
```

ACCESSION VERSION KEYWORDS REFERENCE AUTHORS RESULT 15 CB671388 BASE COUNT ORIGIN FEATURES COMMENT 유 र् 밁 ঠ 밁 र् BASE COUNT ORIGIN SOURCE DEFINITION Snoo Query Match 12.8%; Best Local Similarity 53.3%; Matches 88; Conservative Best ORGANISM Matches Query Match JOURNAL TITLE source Local 240 150 120 GCGATGGCCGCGAGAACTACTGGAGGTTCGCCGACGCGGCAGCAGCAGCAGGCCATGGTG 179 Contact: Rod Wing Arizona Genomics Institute University of Arizona Biological Sciences West, 44 85721-0088, USA 90 GTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGCGGCGGGGGACGGCCGCC 149 зо ссеслествення в поставления CB671388 CB671388.1 88; Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Oukaryota; Viridiplancae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.

1 (bases 1 to 594) CB671388 594 bp mRNA linear EST 09-APR-20 OSJNEe04P05.f OSJNEe Oryza sativa (japonica cultivar-group) cDNA Clone OSJNEe04P05 5', mRNA sequence. BACKWARD: gga aac agc tat gac cat g Plate: 04 row: P column: 05 Seq primer: gta aaa cga cgg cca gtg Location/Qualifiers Tel: 520 626 3967 Fax: 520 621 9288 Email: http://genome.arizona.edu Jantasuriyarat, C., Lu,G., Gowda,M., Hatfield,J., Zhou,B., Mazur,E., Kudrna,D., Dean,R., Soderlund,C., Wing,R. and Wang,G. Large-scale identification of ESTs involved in the interaction between rice and Magnaporthe grisea FORWARD: gta aaa cga cgg cca gtg Unpublished Similarity CAGGCCGCGGGCATGCCCCCCGCAGGCCGCCATGGCGCAGCAG 284 CAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGCAGAAG 194 114 Conservative 92 ø /organism="Oryza sativa (
/mol type="mRNA"
/cultivar="Nipponbare"
/db xref="taxon:39947"
/clone="OSJNEE04P05" /Clone lib="OSUNBe"
/note="Vector: pBluescript II KS +; Site\_1: EcoRI; Site\_2:
/note="Vector: pBluescript II KS +; Site\_1: EcoRI; Site\_2: EcoRI; EcoRI /dev\_stage="tri-nucleate pollen stage" /clone\_lib="Oryza sativa Koshihikari pistil" 160 c 179 g 62 t /tissue\_type="Leaf" /dev\_stage="3 week" /lab\_host="DH10B" GI:29675113 . 594 12.8%; ; Score 41.8; DB; Pred. No. 2.9; 0; Mismatches Score 41.8; D Pred. No. 3; 0; Mismatches 0 448A, P.O. Box 210088, Tucson, AZ (japonica cultivar-group)" DB 9; DB 14; 77; 77; Length 493; Length 594; Indels Indels EST 09-APR-2003 0 0 Gaps Gaps 0 0

문	ફ	Дb	Ş	Дb	β
246 CAGGCCGCGGGCATGCCCCCGCAGGCCGCCATGGCGCAGCAG 290	150 CAGGCCGCGGTGCCGCTTCCAAGAAGCAGCAATAAGCAGAAG 194	186 Gedgedgededecegedgeggggggggggggggggggggg	90 GTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCGGCGGCGGGGGACGGCCGCC 149	126 GCGATGGCCGAGAACTACTGGAGGTTCGCCGACGCGGCAGCAGCAGCCATGGTG 185	30 GCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACCTGAAAACCCAGATCGACCAG 89
		٠.	_	٠.	

Search completed: January 15, 2004, 07:21:29 Job time : 2062 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엺
  8 7 6 5 4 8 8
                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB DB
                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length:
                                                                                                                                                                                                           Query
Match
  100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N_Geneseq_19Jun03:*

: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA198(.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*
3: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*
4: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*
5: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1984.DAT:*
6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1984.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1986.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1986.DAT:*
7: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-084-843-46
327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2552756 seqs, 1349719017 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    January 15, 2004, 06:13:46;
                                                                                                                                                                                                                                                                                                                                                                                                      | SIDS1/gcgdata/geneseq/geneseqn-emb1/NA198.DAT: *
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA199.DAT: *
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA200.DAT: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGCACGAGAGCCGATGCC.....TACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd
                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000000000
  327
327
327
327
327
                                                                                                                                                                                                              BB
  18
19
19
20
20
24
                                                                                                                                                                                                              IJ
AAT91509
AAT91445
AAV64492
AAV44384
AAZ19294
AAZ19082
AAD47094
AAD28352
                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Search time 258 Seconds (without alignments) 3421.381 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5105512
                     Mycobacterium tube Mycobacterium tube Mycobacterium tube M. tuberculosis im Mycobacterium tube M. tuberculosis re Mycobacterium tube Mycobacterium tube
                                                                                                                                                                                                           Description
  Mycobacterium
```

0 0 0 0 0 0

Mycobacterium tube	AAH75860	22	327	13.5	44	45
M. tuberculosis re	AAZ19099	20	387	14.1	46	44
M. tuberculosis an	AAZ19311	20	387	14.1	46	43
Mycobacterium tube	AAV44401	19	387	14.1	46	42
M. tuberculosis im	AAV64510	19	387	14.1	46	41
Mycobacterium tube	AAT91461	18	387	14.1	46	40
5	AAT91527	18	387	14.1	46	39
M. tuberculosis re	AAZ19098	20	396	83.2	272	38
M. tuberculosis an	AAZ19310	20	396	83.2	272	37
Mycobacterium tube	AAV44400	19	396	83.2	272	36
M. tuberculosis im	AAV64509		396		272	35
Mycobacterium tube	AAT91460		396		272	34
Mycobacterium tube	AAT91526		396		272	33
M. tuberculosis ve	AAS03795		8217		286	32
M. tuberculosis re	AAZ19242		3572		286.8	31
M. tuberculosis an	AAZ19454		3572		286.8	30
DNA encoding antig	ABK14132 .		7676		287.4	29
M. tuberculosis fu	AAZ19156		7676		•	28
M. tuberculosis fu	AAZ19368		7676		287.4	27
Mycobacterium tube	AAZ20198		7676			26
Mycobacterium anti	AAV55801	19	7676	87.9	287.4	25
M. tuberculosis fu	AAV64567		7676		287.4	24
M. tuberculosis re	AAZ19245		2412		287.4	23
M. tuberculosis fu	AAZ19457	20	2412		287.4	22
LHP polypeptide en	AAX29171	20	302		287.4	21
Mycobacterium tube	AAA89038	22	303		290	20
ulatory polyn	AAX29168	20	1278		316.4	19
M. tuberculosis re	AAX29176	20	1070		316.4	18
Mycobacterium tube	AAI99682	2	4411529		318	17
Mycobacterium tube	AAI99683	22	4403765	'n	318	16
iO.	AAT33535	17	16885	, N	318	15
M. tuberculosis CD		24	617	•	318	14
		20	g	97.2	318	13
M. tuberculosis an		20	919	٠	318	12
Mycobacterium tube	AAV44398	19	919	٠	318	11
M. tuberculosis im	AAV64507	19	919	97.2	318	10
5	AAH75863	22	41	٠	318	9

## ALIGNMENTS

08-JAN-1998 (first entry)

AAT91509;

AAT91509 standard; DNA; 327

₽P

ARTSULT 1
AATSULT 2
AATSUL 12-JUL-1996; 01-SEP-1995; 22-SEP-1995; 22-MAR-1996; 05-JUN-1996; Antigen; immunogen; vaccine; tuberculosis; non specific adjuvant; skin testing; M.tuberculosis; ss. 30-AUG-1996; 13-MAR-1997 WO9709428-A2 Mycobacterium tuberculosis Mycobacterium tuberculosis antigen Tb38-1 encoding DNA. 96US-0680574. 95US-0523436. 95US-0533634. 96US-0620874. 96US-0659683. 96WO-US14674 Location/Qualifiers 12..299 /\*tag= a /product= Antigen\_Tb38-1

```
SXCCCCCCCCX BX PPTX BRX PTX XX
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antigen (or its variant differing only in conservative substitutions and/or modifications). The present sequence encodes a specifically claimed M.tuberculosis antigen, Tb38-1. The immunogenic protein, and fusion proteins containing one or more of the proteins or one of the proteins plus ESAT-6, are useful in vaccines, preferably when formulated with a non-specific adjuvant, to induce an immune response against M.tuberculosis (for treatment or prevention).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New immunogenic polypeptide(s) from Mycobacterium tuberculosis - are useful in vaccines for prevention or treatment of tuberculosis, also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-192903/17.
P-PSDB; AAW32444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Campos-neto A, Dillo
Twardzik DR, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Page 83-84; 168pp; English.
                                                                                          Mycobacterium
                                                                                                             13-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 327 BP; 79 A; 95 C; 111 G; 42 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for diagnosis
                                      Mycobacterium
                                                                     Antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CORI-) CORIXA
                                                          testing;
                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                              327;
                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                         \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                AGTGGCGCGGCGGGGGGGAGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                          immunogen; vaccine; tuberculosis; non
ting; M.tuberculosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                          CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                     CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                       standard;
                                                                                                                                                                                                                       CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                  AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                              AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                             CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                        CCAATAAGCAGAAGCAGGAACTCGACGAGATTCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                     AGTGGCGCGGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                             CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                          tuberculosis antigen Tb38-1 encoding DNA
                                                                                                               (first entry)
                                       tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dillon DC
edvick TH;
       Location/Qualifiers 12..299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 327; DB 18; 100.0%; Pred. No. 6.6e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Houghton
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       æ
                                                                                                                                                                                                           327
                                                                                                                                                                                                                               327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 18;
                                                                      specific adjuvant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Skeiky YAW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                            60
          RESULT 3
AAV64492
ID AAV6
                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                  Ś
                                                                                                                                                                                       밁
                                                                                                                                                                                                          8
                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                             5
                                                                                S
                                                                                                       밁
                                                                                                                                               밁
```

```
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-JUL-1996;
01-SEP-1995;
22-SEP-1995;
22-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A new immunogenic polypeptide has been developed comprising an immunogenic part of a soluble Mycobacterium tuberculosis antigen (or its variant differing only in conservative substitutions and/or modifications). The present sequence encodes a specifically claimed M.tuberculosis antigen, Tb38-1. The immunogenic polypeptide can be used to diagnose M.tuberculosis infection by forming complexes with specific antibodies in the sample. Fragments of DNA encoding the immunogenic polypeptide can be used as diagnostic primers or probes and agents that bind to the antigen, especially monoclonal antibodies or equivalent polyclonal antibodies, are also used for diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New immunogenic polypeptide(s) from soluble M. tuberculosis antigens - useful for diagnosis of M. tuberculosis infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Campos-neto A, Dillon D
Twardzik DR, Vedvick TH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9709429-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Page 88; 190pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CORI-) CORIXA
301
                                     301
                                                                                241
                                                                                                                      241
                                                                                                                                                                 181
                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327;
                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                CCGCCGACCTGAAAACCCAGATCGACCACGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                 AATACTCGAGGGCCGACGAGGAGCAGCAGGCGGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                 CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                            AGTGGCGCGGCGGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                   CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                         CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                     CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 79 A; 95 C; 111 G; 42 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0680573.
95US-0523435.
95US-0532136.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0620280
96US-0658800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96WO-US14675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= a
/product= Antigen_Tb38-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 327; DB 18; 100.0%; Pred. No. 6.6e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Houghton R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Skeiky YAW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                        240
                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                               60
```

AAV64492

standard; DNA; 327

ВP

J.

```
S
                                                   밁
                                                                        S
                                                                                                  밁
                                                                                                                              Ś
                                                                                                                                                        .당
                                                                                                                                                                                 Ś
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                               This sequence encodes an immunogenic portion of a soluble Mycobacterium tuberculosis (MT) antigen which can be used in a method for inducing protective immunity against tuberculosis (TB). This sequence can be formulated into vaccines and/or pharmaceutical compositions for immunising against M. tuberculosis infection or may be used for the diagnosis of tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunogenic Mycobacterium tuberculosis polypeptide(s) and DNA - used to develop products for the detection of M. tuberculosis infection and for diagnosis, treatment and prevention of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Campos-Neto A, Dillo
Reed SG, Skeiky YAW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tuberculosis; immunogenic; soluble; antigen; protective immunity; vaccine; pharmaceutical; infection; diagnosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M. tuberculosis immunogenic polypeptide Tb38-1 DNA
                                                                                                                                                                                                                                                                                                                                                                         Sequence 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 4; Page 88; 230pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-261042/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-APR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9816646-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV64492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-1996;
                       301
                                                   241
                                                                            241
                                                                                                      181
                                                                                                                                181
                                                                                                                                                           121
301
                                                                                                                                                                                  121
                                                                                                                                                                                                              61
                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                    327;
                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                      CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                            CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                              CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                  AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                           AGTGGCGCGGCGGCGGGGAACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                 CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                       CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                   AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                       CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                           AGTGGCGCGCGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                           BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0818112.
96US-0730510.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97WO-US18293.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dillon
                                                                                                                                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                                                                                                                                         A; 95 C; 111
                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DC, Houghton R,
Twardzik DR, Ve
                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                    Score 327; DB 19;
Pred. No. 6.6e-72;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                                                                                                                                           42 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lodes MJ;
                                                                                                                                                                                                                                                                                                                                                                           0 other;
                                                                                                                                                                                                                                                                                                                                             Length 327;
                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĪΒ
                                                                                                                                  240
                                                    300
                                                                             300
                                                                                                       240
                                                                                                                                                         180
                                                                                                                                                                                    180
                                                                                                                                                                                                              120
                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                            60
```

```
ARVATAR
ARVATA
         S
                                                                           片
                                                                                                                                  á
                                                                                                                                                                                               밁
                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequences encoding such polypeptides, recombinant expression vectors and transformed or transfected host cells. Also clais are methods and disgnostic kits for detecting M. tuberculosis infection in a patient using these polypeptides, antibodies or oligonuclectide probes and primers, for the diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This DNA sequence codes for an antigenic portion of Mycobacterium tuberculosis antigen Tb38-1 (see AAW64321). It was isolated from M. tuberculosis strain H37Rv expression library using sera from patients having pulmonary or pleural tuberculosis. The invention relates to compositions and methods for diagnosing tuberculosis. It provides polypeptides (see AAW64291-W64379) comprising an antigenic portion of a soluble M. tuberculosis antigen, as well as DNA sequences encoding such polypeptides, recombinant expression controlled to the polypeptides of the polypeptides antigen, as well as DNA sequences encoding such polypeptides, recombinant expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV44384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV44384 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis antigen Tb38-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 4; Page 90; 250pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Campos-Neto A, Dillon DC, Houghton Reed SG, Skeiky YAW, Twardzik DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-MAR-1997;
11-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and diagnosis of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated Mycobacterium tuberculosis polypeptides and DNA - used to develop products for the detection of M. tuberculosis infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; AAW64321.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-251292/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9816645-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
hes 327; Conserv
                     181
                                                                                 121
                                                                                                                                        121
                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                               CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                          CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTTCGTCAGGCCGGCGTCC
                                                                              AGTGGCGCGGCGGGGACGGCCGCCCAGGCCGCGGTGCGCTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                  CCGGCGACCTGAAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                   AGTGGCGCGGCGCGGGGGAGACGGCCGCCCAGGCCGGGGGGGTGGTGCGCTTCCAAGAAGCAG 180
                                                                                                                                                                                                                                                                                                                  CGGCACGAGAGCCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tuberculosis strain H37Rv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0818111.
96US-0729622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97WO-US18214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; 95 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis; antigen; Tb38-1; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111 G;
                                                                                                                                                                                                                                                                                                                                                                                                                               Score 327; DB 19;
Pred. No. 6.6e-72;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R, Lodes MJ;
Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Also claimed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e
                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

문

181

CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC

240 180

240

120

60

0

```
밁
                      Ś
                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Б
                                                                                 S
                                                                                                                              Query Match
Best Local
                                                                                                               Matches 327;
                                                                                                                                                                                                             The present invention describes polypeptides comprising an immunogenic part of a Mycobacterium tuberculosis antigen (Ag). Also described are vaccines and fusion protein containing M. tuberculosis Ag's.

M. tuberculosis Ag's. DNAs encoding them, derived fusion proteins and other polypeptides fragments, can be used in pharmaceutical compositions or vaccines to generate a protective or therapeutic immune response to M. tuberculosis and as reagents in stin tests for diagnosis of tuberculosis and as reagents in finite tests for diagnosis of tuberculosis. Ag can induce proliferation of, or cytokine secretion by, T, B or natural killer cells and/or macrophages in tuberculosis immune subjects. AAZ19249 to AAZ19460 and AAY39083 to
                                                                                                                                                                      Sequence 327
                                                                                                                                                                                                                                                                                                                                                                           Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                      New antigens from Mycobacterium tuberculosis useful in diagnostic skin tests and protective or therapeutic vaccines or compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-527409/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Campos-Neto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9942076-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium tuberculosis; M. tuberculosis; antigen; immunogen; immunotherapy; diagnosis; immunisation; vaccine; infection; immune response; skin test; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M. tuberculosis antigen Tb38-1 DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ19294;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ19294 standard; DNA; 327 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₹
,
61
                            61
                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATACTCGAGGGCCGACGAGCAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGAC
                            CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                    CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                    are used in the
                                                                                                                                                                                                                                                                                                                                                                           Page .90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTACTCGAGGGCCGACGAGGAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o A, Dillon DC, Hendrickson RC, Ho
Reed SG, Skeiky YAW, Twardzik DR,
                                                                                                                 Conservative
                                                                                                                                                                      B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0072967.
98US-0025197.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US03268
                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                                                                                                         299pp; English.
                                                                                                                                                                        A; 95 C; 111 G; 42 T; 0 other;
                                                                                                                             100.0%;
                                                                                                                                                                                                    exemplification of the present invention.
                                                                                                               ,
                                                                                                              Score 327; DB 20;
Pred. No. 6.6e-72;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Houghton R; 
R, Vedvick
                                                                                                                 Indels
                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TS;
                                                                                                                                           327;
                                                                                                                 0
                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                               120
                                                          60
                                                                                    60
                                                                                                                  0
```

Û

S

61

CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC

120

```
RESULT 6
AAZ1902
ID AAZ1
XX AAZ1
XX AAZ1
XX AAZ1
XX AAZ1
XX AAZ1
XX AAT1
XX AA
밁
                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                        Query Match
Best Local S
Matches 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antigen;
vaccine;
                                                                                                                                                                                                                                                                                                       This invention describes novel recombinant antigens and their encoding nucleic acids derived from Mycobacterium tuberculosis. The novel polypeptides are useful for detecting M. tuberculosis infection in a biological sample by detecting antibodies which bind with the
                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-527416/44.
P-PSDB; AAY38981.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M. tuberculosis recombinant antigen DNA encoding Tb38-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ19082;
                                                                                                                                                                                                                                       current vaccination strategies
                                                                                                                                                                                                                                                               polypeptides, and are useful as vaccines for immunizing against
M. tuberculosis infection. The new detection methods are needed
                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polypeptide comprising antigenic portions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Campos-Neto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9942118-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ19082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CORI-) CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                          327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGCGCGCGGCGGGGACGGCCCAGGCCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGCGCGCGCGGCGGACGCCCAGGCCGCGGTGGTGCTCCAAGAAGCAG
CGGCACGAGACCCGATGCCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                        327 BP; 79 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnosis; detection; infection; antibody; immunisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGACGAATATTCGTCAGGCCGGCGTCC
                                              CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A, Dillon DC,
Reed SG, Skeiky
                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                  128-129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0072596.
98US-0024753.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US03265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                 100.0%;
                                                                                                                                                                                             95
                                                                                                                                                                                                                                                                                                                                                                                                                                  323pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                                                                                          C; 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쁌
                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YAW, Twardzik DR,
                                                                                          Score 327; DB 20;
Pred. No. 6.6e-72;
); Mismatches 0;
                                                                                                                                                                                                                                            do not
                                                                                                                                                                                             ດ
                                                                                                                                                                                             42 T;
                                                                                                                                                                                                                                         provide 100% immunity.
                                                                                                                                                                                             0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Houghton R;
R, Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of
M.
                                                                                                                                         Length
                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tuberculosis
                                                                                                                                                 327;
                                                                                               0,
                                                                                               Gaps
                                                                                                                                                                                                                                                                    as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                   60
                                                                                                  0
```

300 300 240 180 180 120

240

0

```
RRESULT 7
AAD47
ID AAD4
XX AAD47
XX AAD4
XX AAD4
XX Vacc
XX Vacc
XX Vacc
XX Vacc
XX Myco
XX Ine
XX New
YT New
YT Myco
XX The
CC Myco
XX The
CC Myco
CC Micr
CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ર્શ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        묽
                                                                                                                                                                                                                                                                                                                                                      New recombinant nucleic acid molecule comprising a Leishmania TSA, LeIF, M15 or 6H polynucleotide, useful as vaccine to elicit protec immunity against pathogenic microorganisms e.g. Leishmania and Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Skeiky Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-MAR-2001; 2001US-275837P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-MAR-2002; 2002WO-US08223.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine; immunity; diagnostic agent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis Tb38-1 antigen encoding DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAD47094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD47094 standard; DNA; 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200272792-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002-759844/82.
)B; AAE29717.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGACGACGATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGCGCGCGCGGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGGCGCGGCGGCGGGGACGGCCGCCAGGCCGCGGTGGTGCGCCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATACTCGAGGCCGACGAGGAGCAGCAGCAGCGCTCTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brannon M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product= "Tb38-1 antigenic protein"
/note= "CDS does not include start codon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Guderian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ٦.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy; Tb38-1 antigen;
                                                                                                                                                                                                                                                                                                                                                                                        t protective and
```

The invention relates to a recombinant nucleic acid molecule encoding a fusion polypeptide. The recombinant nucleic acid comprises a heterologous polynucleotide sequence encoding an antigen or an antigenic fragment from Mycobacterium sp. and a Leishmania polynucleotide sequence encoding a polypeptide or its fragment. The Leishmania polynucleotide is selected from TSA, LeIF, M15, and 6H polynucleotides. Sequences of the invention are used in methods for eliciting immune response in mammals. They are useful as vaccines to elicit protective immunity against pathogenic microorganisms such as Leishmania and Mycobacterium tuberculosis. Pusion

used for

enhancing the expression of

polynucleotides

Disclosure; Page 106-107; 155pp; English.

```
RESULT 8
AAD23352
ID AAD2
XX AAD2
XX AAD2
XX Pussi
KW Fussi
KW Tube
XX Myco
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ន្តន្តន្តន្តន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as in vivo diagnostic agents and for raising antibodies in a non-human animal. The invention is used in gene therapy. The present sequence is M. tuberculosis Tb38-1 antigen encoding DNA. Tb38-1 is also referred to as MTb11 or 38-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 327 BP;
WPI; 2002-147798/19
P-PSDB; AAE17581.
                                                                                                                                                                    20-JUN-2000;
01-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fusion protein;
tuberculosis; is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD28352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD28352 standard; DNA;
                                                                      Skeiky Y, Reed S,
                                                                                                                                                                                                                                              20-JUN-2001; 2001WO-US19959
                                                                                                                                                                                                                                                                                                                                              WO200198460-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
                                                                                                                       CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGCGCGGCGGCGGGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCGACCTGAAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGCGCGCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCTCCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                    2000US-0597796.
2001US-265737P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             n; antigen; serological sensitivity; immune response; infection; vaccine; Tb38-1; Mtb11; 38-1; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       species Tb38-1 (Mtb11; 38-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
12..299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                      /*tag= a
/product= "Tb38-1 protein"
/note= "CDS does not inclu
/partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; 95
                                                                         Alderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>.</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      111
                                                                         Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 327; DB 24;
Pred. No. 6.6e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327
                                                                                                                                                                                                                                                                                                                                                                                                                     include start codon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
```

```
AAH75863
ID AAH
  8X8X8X9X8X
                                                                                                                                                                                                                                                                                                                                                                                                                       당
                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                  RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to fusion proteins containing at least CC two Mycobacterium species antigens, nucleotides encoding them and compositions comprising such fusion proteins. The present invention particularly relates to nucleic acids encoding fusion proteins that CC include two or more individual M. tuberculosis antigens which increase the serological sensitivity of sera from individuals infected with cCC tuberculosis and methods for their use in diagnosis, prevention and consequent of tuberculosis infection. Sequences of the invention are consequent for eliciting an immune response in a mammal, e.g., human, cCC immunised with BCG. They are useful in the diagnosis, treatment and consequent on of Mycobacterium infection. The fusion proteins and the polynucleotides are useful as diagnostic tools in patients infected with Mycobacterium, in vitro and in vivo assays for detecting humoral continuous of an infection or monitoring of disease progression, as immunogens to generate or elicit a protective immune response in a cc patient and for raising anti-M. tuberculosis antibodies in a non-human cc animal. Sequences of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are seeful as in vivo diagnostic agents for intradermal skin test. The present sequence is a DNA encoding control of the invention are also used as a control of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines. MT832A cc fusion proteins of the invention are also used as vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity Matches 327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Composition comprising MTB39 antigen and MTB32A antigen from Mycobacterium species, useful for eliciting immune response in subject -
Mycobacterium tuberculosis
                                           Mycobacterium tuberculosis detection; ds
                                                                                       Mycobacterium tuberculosis gene fragment #4
                                                                                                                                  26-OCT-2001
                                                                                                                                                                              AAH75863
                                                                                                                                                                                                                       AAH75863 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 327 BP; 79 A; 95 C; 111 G; 42 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                       CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGCGCGGCGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGCACGAGAGCCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                       CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGCGCGCGCGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; ilarity 100.0%; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 123; 136pp; English
                                                                                                                                (first entry)
                                                                                                                                                                                                                       641
                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 327; DB 27;
Pred. No. 6.6e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

BXBXBXBXBXBX

23-APR-1998 WO9816646-A2 Mycobacterium Tuberculosis; immunogenic; soluble; antigen; protective immunity; vaccine; pharmaceutical; infection; diagnosis; ss.

TB;

tuberculosis

M. tuberculosis immunogenic polypeptide Tb38-1F2 IN

27-JAN-1999

(first entry)

AAV64507 standard; DNA; 1616

ВP

```
RESULT 10
AAV64507
ID AAV64
                                                                                                                    밁
                                                                                                                                      S
                                                                                                                                                                     밁
                                                                                                                                                                                             S
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Sim
Matches 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a PCR-based method for the detection of Mycobacterium tuberculosis. The present sequence was used to illustrate the method of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 641 BP; 163 A; 178 C; 209 G; 91 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Columns 19-22; 13pp; Russian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detection of DNA from tuberculosis mycobacterium complex comprising polymerase chain reaction method -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-280317/29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Beklemishev AB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ASIB=) AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RU2163638-C1.
                                                                                                                   349
                                                                                                                                                                                                                          229
                                                                 409
                                                                                         310
                                                                                                                                            250
                                                                                                                                                                      289
                                                                                                                                                                                                190
                                                                                                                                                                                                                                                  130
                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                  70
                                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                           TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                              AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC 69
                                                                               CGAAAAGAAACGGAGCAA 327
                                                                 CGAAAAGAAACGGAGCAA 426
                                                                                                                   GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                          GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                   GCGCGGCGGGGACGGCCGCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                             TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                              AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIBE
                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99RU-0125164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99RU-0125164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIOCHEM RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Khorosheva EM, Nomokonova
                                                                                                                                                                                                                                                                                                                                                                                  97.2%; Score 318; DB 22; 100.0%; Pred. No. 1.2e-69; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ľμ
                                                                                                                                                                                                                                                                                                                                                                                   ٥,
                                                                                                                                                                                                                                                                                                                                                                                                          Length 641;
                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                         348
                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                            288
                                                                                                                                                                                                                                                                               228
```

```
RESULT 11
AAV44398
ID AAV44
XX AAV4
XX OP-NC
DT O9-NC
XX Tubes
XX Tubes
XX Mycob
                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence encodes an immunogenic portion of a soluble Mycobacterium tuberculosis (MT) antigen which can be used in a method for inducing protective immunity against tuberculosis (TB). This sequence can be formulated into vaccines and/or pharmaceutical compositions for immunising against M. tuberculosis infection or may be used for the diagnosis of tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Immunogenic Mycobacterium tuberculosis polypeptide(s) and DNA - used to develop products for the detection of M. tuberculosis infection and for diagnosis, treatment and prevention of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Campos-Neto A, I
Reed SG, Skeiky
                                                                                            Mycobacterium tuberculosis antigen
                                                                                                                         09-NOV-1998
                                                                                                                                                                             AAV44398 standard; DNA; 1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-OCT-1997;
                                        Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1616 BP; 331 A; 501 C; 550 G; 234 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-261042/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAR-1997;
11-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                      1472
                                                                                                                                                                                                                                                                                                                                                             1412
                                                                                                                                                                                                                                                                                                                                                                                                                  1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1232
                                                                                                                                                                                                                                                                                                                                250
                                                                                                                                                                                                                                                                                                                                                                                      190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCGATGCCGCTACCCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC 69
                                                                                                                                                                                                                                                                                                                            GGGCCGACGAGCAGCAGCAGCAGCCCCCTCTCCTCGCAAATGGGCTTCTTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCGGCGGGACGGCCCCAGGCCGCGCGGTGCGCCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCG;ATCTCCGGCGACC
                                                                                                                                                                                                                                                 CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                      AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCGGCGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                          CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 136; 230pp; English.
                                                                                                                      (first entry)
                                         tuberculosis strain H37Rv
                                                                   infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0818112.
96US-0730510.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97WO-US18293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dillon
y YAW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97.2%; Score 318; DB 19; 100.0%; Pred. No. 1.4e-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DC, Houghton
Twardzik DR,
                                                                diagnosis; antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                              Tb38-1F2 IN DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lodes
                                                                   Tb38-1F2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                   IN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                      249
                                                                                                                                                                                                                                                                                                                                                                                                                                           189
                                                                                                                                                                                                                                                                                                                                                                                                                  1411
                                                                                                                                                                                                                                                                                                                                                           1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
RESULT 12
AAZ19308
ID AAZ19
XX
AC AAZ19
XX
```

WO9816645-A2

AAZ19308

AAZ19308 standard; DNA; 1616

ВÞ

1471 249

1531

189

1411

129 1291 69 0

```
S
                                                                                        밁
                                                                                                                                         δ
                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This DNA sequence codes for an antigenic portion of Mycobacterium tuberculosis antigen fp38-1F2 IN. It was isolated from a M. It was isolated for disagnosing an antigenic portion of a soluble M. It was isolated from a M. It wa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1616 BP; 331 A; 501 C; 550 G; 234 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated Mycobacterium tuberculosis polypeptides and DNA - used to develop products for the detection of M. tuberculosis infection and diagnosis of tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Campos-Neto A, Dillo
Reed SG, Skeiky YAW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-MAR-1997;
11-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Page 141-142; 250pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-251292/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocal Similarity
1532
                                                                                                1472
                                                                                                                                                                                            1412
                                                                                                                                                                                                                                                                                            1352
                                                                                                                                                                                                                                                                                                                                                                                             1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1232
                                                                                                                                                                                                                                            190
                                                                                                                                                                                                                                                                                                                                          130
                                                                                                                                                                                                                                                                                                                                                                                                                                           70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10
                                                                                                                                                                                         TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                           GCGCGGGGGGACGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                CGAAAAGAAACGGAGCAA 327
                                                                                                                                                GGGCCGACGAGGAGCAGCAGCGCTCTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                            GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                             TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0818111.
96US-0729622.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97WO-US18214.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dillon DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DC, Houghton
Twardzik DR,
1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 318; DB 19;
Pred. No. 1.4e-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R, Lodes MJ;
Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Сарв
```

05-NOV-1999

(first

entry)

```
밁
                 5
                                                         밁
                                                                                     Ş
                                                                                                                   밁
                                                                                                                                          Ş
                                                                                                                                                                            문
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                    뭉
                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes polypeptides comprising an immunogenic part of a Mycobacterium tuberculosis antigen (Ag). Also described are vaccines and fusion protein containing M. tuberculosis Ag's.

M. tuberculosis Ag's, DNAs encoding them, derived fusion proteins and other polypeptides fragments, can be used in pharmaceutical compositions or vaccines to generate a protective or therapeutic immune response to M. tuberculosis and as reagents in skin tests for diagnosis of tuberculosis. Ag can induce proliferation of, or cytokine secretion by, T, B or natural killer cells and/or macrophages in tuberculosis-immune subjects. AAZ19249 to AAZ19460 and AAY39083 to
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1616 BP; 331 A; 501 C; 550 G; 234 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 130-131; 299pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                skin tests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Campos-Neto A,
Lodes MJ, Ree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-AUG-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9942076-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacterium tuberculosis; M. tuberculosis; antigen; immunogen; immunotherapy; diagnosis; immunisation; vaccine; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY39225 are used in the exemplification of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CORI-) CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tuberculosis antigen Tb38-1F2 IN DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antigens from Mycobacterium tuberculosis useful in diagnostic n tests and protective or therapeutic vaccines or compositions
                                                                                                                                                                              1352
                                                                                                                                                                                                                                         1292
                                                           1472
                                                                                                                   1412
                                                                                                                                                                                                                                                                                                    1232
                           310
                                                                                                                                                190
                                                                                                                                                                                                           130
                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                      70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 response; skin test; ss.
                                                                                                                                                                                                                                                                                                                     AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC
                             CGAAAAGAAACGGAGCAA 327
                                                                                        GGGCCGACGAGCAGCAGCAGCCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA
                                                                                                                                        AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                GCGCGGCGGACGGCCCAGGCCGCGGTGGTGCCCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                        TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                     AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                    AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reed SG,
                                                                                                                                                                                                                                                                                                                                                             97.2%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0072967
98US-0025197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US03268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dillon DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Skeiky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hendrickson RC, H
YAW, Twardzik DR,
 1549
                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                             Score 318; DB 20;
Pred. No. 1.4e-69;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Houghton R;
)R, Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                         Length 1616;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    invention.
                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                               Сарв
                                                                                        . 309
                                                                                                                      1471
                                                                                                                                                   249
                                                                                                                                                                                 1411
                                                                                                                                                                                                             189
                                                                                                                                                                                                                                                                        129
                                                                                                                                                                                                                                                                                                     1291
                                                                                                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                          1351
                                                                                                                                                                                                                                                                                                                                                               0
```

```
S
                           밁
                                                  Ś
                                                                              밁
                                                                                                 δ
                                                                                                                               밁
                                                                                                                                                     Ś
                                                                                                                                                                                밁
                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antigen; vaccine;
                                                                                                                                                                                                                                                                                                                                                        This invention describes novel recombinant antigens and their encoding nucleic acids derived from Mycobacterium tuberculosis. The novel polypeptides are useful for detecting M. tuberculosis infection in a biological sample by detecting antibodies which bind with the polypeptides, and are useful as vaccines for immunizing against M. tuberculosis infection. The new detection methods are needed as current vaccination strategies do not provide 100% immunity.
                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 3; Page 176-177; 323pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polypeptide comprising antigenic portions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-527416/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Campos-Neto A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M. tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ19096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ19096 standard; DNA; 1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CORI-) CORIXA CORP.
                                1472
                                                                                                                                1352
                                                                                                                                                                                                                                  1232
                                                                                1412
                                                                                                                                                                                  1292
      310
                                                      250
                                                                                                      190
                                                                                                                                                        130
                                                                                                                                                                                                                                                                                   al Similarity
318; Conserv
                                                                                                                                                                                                         70
                                                                                                                                                                                                                                                           10
                                                                                                                                                                                                                                                 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                               GCGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                   TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnosis; detection; infection; antibody; immunisation; immunity; ss.
CGAAAAGAAACGGAGCAA
                                              GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                              AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                  GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                  TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                   1616 BP; 331 A; 501
                                GGGCCGACGAGGAGCAGCAGCCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reed
                                                                                                                                                                                                                                                                                  97.2%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0072596
98US-0024753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US03265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dillon DC,
SG, Skeiky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              recombinant antigen DNA encoding Tb38-1F2
                                                                                                                                                                                                                                                                                               Score 318; DB 20; 
; Pred. No. 1.4e-69;
       327
                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hendrickson RC, H
YAW, Twardzik DR,
                                                                                                                                                                                                                                                                                                                                   ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                   550 G;
                                                                                                                                                                                                                                                                                                                                     234 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Houghton R;
R, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of.
                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                           Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      M. tuberculosis
                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TS;
                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                     Gaps
                                                          309
                                                                                   1471
                                                                                                           249
                                                                                                                                   1411
                                                                                                                                                            189
                                                                                                                                                                                                                                    1291
                                                                                                                                                                                   1351
                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                            129
```

1532

CGAAAAGAAACGGAGCAA

RESULT 14

```
Ş
                                      밁
                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABS63323
                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                             T cell stimulating antigen. Also included are (1) an isolated DNA sequence consisting of DNA sequences isolated using the new method, their complement or DNA sequences that hybridise to them; (2) an expression vector comprising (1); (3) a host cell transformed with the expression vector of (2); and (4) a polypeptide comprising an immunogenic portion of antigen, or a variant of the antigen that differs only in conservative substitutions and/or modifications, where the antigen comprises an amino acid sequence encoded by (1). The method is useful for identifying and isolating new antigens that stimulate CD4+ T cells. In particular, the method is useful for isolating antigens associated with any disorder in which the stimulation of CD4+ T cells is believed to play a role in the body's immune response, e.g. CD4+ T cell-stimulating antigens associated with infectious disease agents such as Mycobacterium tuberculosis or the present method.
                                                                                                                                                                                                                                   Leishmaniasis, tumour tissue, or autoimmune disorders. The present method is less technically difficult sets time-consuming than prior methods. The present method is also more suitable for high-throughput use. The present sequence encodes a CD4+ T cell-stimulating antigen from M. tuberculosis, Tb38-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cell stimulating antigens or antigens containing antibody epitopes comprises determining the level of CD4+ T cell stimulation when incubated with dendritic cells that have been exposed with a host cell transformed with a plasmid suspected of containing a DNA sequence that encodes a CD4+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Identifying DNAs encoding CD4+ T cell stimulating antigens, for isolating new CD4+ T cell-stimulating antigens associated with infections, comprises measuring the levels of interferon-gamma production or cell proliferation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ds; gene; antigen; CD4+; infectious disease; tumour; tuberculosis; autoimmune disease; Leishmaniasis; dendritic cell; T cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M. tuberculosis CD4+ antigen Tb38-1 DNA
                                                                                                                                                                                                Sequence 1617 BP; 331 A; 501 C; 550 G; 234 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1; Page 38; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-617730/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Skeiky YAW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2002081579-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABS63323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABS63323 standard; DNA; 1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTT/) POTTER J E R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-JUN-2002.
                                        1233
                                                                                                                    318;
  TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                               AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 69
                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dillon DC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             relates to identifying DNA sequences that encode CD4+
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0023588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0023588
                                                                                                                                       97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alderson
                                                                                                                                       Score 318; DB 24; ; Pred. No. 1.4e-69;
                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                      Mismatches
                                                                                                                    0,
                                                                                                                                                         Length 1617;
                                                                                                                      Indels
                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             e.g
                                                                                                                    Gaps
                                        1292
                                                                                                                    0
```

```
AAT33535

ID AAT33

AC BCG d

KW BCG d

KW mycob

KW mycob

XX Myc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                      This DNA sequence comprises Mycobacterium bovis BCG deletion sequence BCGdeltal. A specific genetic deletion of this region results in an avirulence phenotype of the mycobacterium. 2 Other deletion regions (see AAT33536 and AAT33537) have also been detected. Identification involved screening a BCG cosmid library with a radiolabeled probe obtained following DNA subtraction between virulent Mycobacterium tuberculosis H37Rv and avirulent BCG. The deletions provide useful markers for the identification of an avirulent, or a virulent, mycobacterial phenotype. Determination of avirulence requires the detection of the presence or absence of deletions are detected either by detecting the presence or absence of deletion junctions (see AAT3358-46), or by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Detecting markers for avirulence in Mycobacterium - used production of vaccines against bacterial infection, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAT33535;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT33535 standard; DNA; 16885
presence or absense of deletion junctions (see AAT33538-46), or by detecting the presence or absence of the sequences contained within
                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Fig 1; 66pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1996-393419/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mahairas GG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-FEB-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mycobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BCG deletion region 1 and flanking sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9625519-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PATH-) PATHOGENESIS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         delta 1; virulence; avirulence;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAAAAGAAACGGAGCAA 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCGGCGGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stover CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bovis strain BCG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vaccine; infection; marker;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95US-0390878.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96WO-US01938.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "BCG delta 1 deletion region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2327..11126
                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뫈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            attenuation; gene deletion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and to detect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1412
```

ఠ	ş	ф	Ş	DЪ	Ş	망	Ş	망	8	망	Ś	3 5	ည	So	ននេះ	
4652	310	4592	250	4532	190	4472	130	4412	70	4352	10	Matches 318	Query Match	Sequence	the deletion. immunological	
52 CGAAAAGAAACGGAGCAA 4669	10 CGAAAAGAAACGGAGCAA 327	92 GGCCGACGAGCAGCAGCAGCAGCAGCAGATGCCTCCCAAATGGGCTTCTGACCCGCTAATA 4651	:50 GGGCCGACGAGGAGCAGCAGGCGCGCTGTCCTCGCAAATGGGCCTTCTGACCCGCTAATA 309	32 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 4591	90 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249	72 GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 4531	.30 GCGCGGCGGGACGGCCGAGGCCGCGGTGGTGCTCCAAGAAGCAGCAATAAGC 189	12 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 4471	70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129	52 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 4411	10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 69	Matches 318; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	97.2%; Score 318;	ce 16885 BP; 3050 A; 5603 C; 5307 G; 2915 T; 10 other;	letion. Deletion polypeptides are used as components of logical assays and in vaccines.	

Search completed: January 15, 2004, 06:46:58 Job time : 264 secs



```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title: .
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          January 15, 2004, 06:42:30; Search time 29:9 Seconds (without alignments) 388.211 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-084-843-46
327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2324096 seqs, 1762381658 residues
                                                                                                                                                                                                                                                                                                                                                      Published Applications NA:*

1: /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
4: /cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
5: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
6: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CGGCACGAGAGACCGATGCC.....TACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Copyright
/cgn2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                         6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                           NEW_PUB. seq: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4648192
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

2 3 3 4 4 4 6 6 6 7 7 7 10 11 11 11 11 11 11 11 11 11 11 11 11	Result No.
327 327 318 318 318 316.4 316.4 287.4 287.4 287.4	Score
100.0 100.0 97.2 97.2 97.2 96.8 96.8 87.9 87.9	Query
327 1616 1616 1617 1617 1069 1069 1277 1277 1277 1277 1277 1277 1277 127	Query Match Length DB
13 13 13 13 13 13 13 13	
US-10-104-043-46 US-10-193-002-46 US-10-098-732A-34 US-10-084-843-112 US-10-193-002-107 US-09-023-588-67 US-10-140-045-37 US-10-140-045-3 US-10-193-002-345 US-10-193-002-345 US-10-084-843-213	ID
Sequence 46, Appl Sequence 46, Appl Sequence 112, Appl Sequence 117, App Sequence 17, Appl Sequence 67, Appl Sequence 1, Appl Sequence 37, Appl Sequence 38, Appl Sequence 38, Appl Sequence 360, App Sequence 350, App	, B

			Ω				a		Ω	ი				ი		a			n	ი	a								
45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
37.8	37.8	37.8	38	38	38.4	39.4	39.6	39.6	39.8	39.8	39.8	39.8	39.8	40.2	42.4	42.4	42.6	44.2	44.2	46	46	272	272	285.4	286.8	286.8	287	287.4	287.4
11.6			11.6		11.7	12.0	12.1	12.1	12.2	12.2	12.2	12.2	12.2	12.3	13.0	13.0	0	ຫ	Մ	ï	Ļ	'n	83.2	87.3	87.7	87.7	87.8	87.9	87.9
2040	1191	1170	921	849	2529	2076	154746	75216	9025608	59816	59816	3882	1128	6442	4139	603	3897	9025608	3471	387	387	396	396	855	3572	3572	300	7676	7676
12	15	12	15	15	15	12	13				12	12	15	10	12	13							13	15	13	13	10	13	13
US-10-369-493-41606	US-10-156-761-7336	US-10-369-493-44371	US-10-156-761-1518	US-10-156-761-470	US-10-156-761-6449	US-10-369-493-44211	US-09-827-688-8	US-10-080-170-646	US-10-156-761-1	US-10-084-846A-2	US-10-084-846A-1	US-10-084-846A-49	US-10-156-761-2339	US-09-950-335A-11	US-10-439-388-24	US-10-029-386-20492	US-10-156-761-4899	US-10-156-761-1	US-10-156-761-2726	US-10-193-002-113	US-10-084-843-118	US-10-193-002-111	US-10-084-843-116	US-10-140-045-36	US-10-193-002-337	US-10-084-843-342	US-09-894-844-4	US-10-359-460-9	US-10-193-002-208
Sequence 41606, A		Sequence 44371, A	1518,		Sequence 6449, Ap	Sequence 44211, A	Sequence 8, Appli	546	Sequence 1, Appli	2, 1	1, 1	Sequence 49, Appl	233	11,	24,	Sequence 20492, A	Sequence 4899, Ap	Sequence 1, Appli	Sequence 2726, Ap	Sequence 113, App		Sequence 111, App		æ	æ	e 342,	.4	Sequence 9, Appli	Sequence 208, App
									4																				

## ALIGNMENTS

	RESULT US-10-1 Seque Publi GEI
	JUT 1 10-08 GENE GENE
COMPT CURRE PRIOF	RESULT 1  US-10-084-843-46  ¡ Sequence 46, Application US/10084843  ¡ Publication No. US20030143243A1  ¡ GENERAL INFORMATION:  APPLICANT: Reed, Steven G.  Skeiky, Yasir A.W.  Dillon, Davin C.  Campos-Neto, Anton  Houghton, Raymond  J Vedvick, Thomas S.  Twardzik, Daniel R  Lodes, Michael J.  Lodes, Michael J.  Hendrickson, Ronal  TITLE OF INVENTION: COMPOUNDS  AND DIAGN  NUMBER OF SEQUENCES: 355  CORRESPONDENCE ADDRESS:  ADDRESSE: SEED and BERR  STREET: 6300 Columbia Ce
CITY: CONTENTS COMPT ZIP: TIER F MEDIT COMPT COMPT OPERA SOFTW NO APPLIA APPLIA FILIN CLASS APPLIA A	46 Appl No. U FORMA FORMA CANT: CANT: SPONE R OF I ADDRE
CITY: Seattle STATE: Washin COUNTRY: USA ZIP: 98104-70 TER READABLE MEDIUM TYPE: COMPUTER: IBM OPERATING SYS SOFTWARE: PAT NT APPLICATION APPLICATION FILING DATE: CLASSIFICATION APPLICATION APPLICATION APPLICATION FILING DATE: NEY/AGENT INF NAME: MAKI, D	Icati IS2003 IS2003 ITION: Reed Skei Dill Camp Houg Vedx Twan I Camp Hond Hende Hend Hend
CITY: Seattle STATE: Washington COUNTRY: USA ZIP: 98104-7092 ZIP: 98104-7092 COMPUTER READABLE FORM: MEDIUM TYPE: Flopp COMPUTER: IBM PC o OPERATING SYSTEM: SOFTWARE: Patentin CURRENT APPLICATION NUMBER FILING DATE: 25-Fe CLASSIFICATION NUMBER FILING DATA: APPLICATION NUMBER FILING DATE: 05-MA ATTORNEY/AGENT INFORMAT NAME: MAKI, DAVId	-843-46  tion No. US20030143243A1  AL INFORMATION: APPLICANT: Reed, Steven Skeiky, Yasir Dillon, Davin Campos-Neto, Davin Campos-Neto, Ray Yedvick, Thom Twardzik, Dan Lodes, Michae Hendrickson, TITLE OF INVENTION: COMP NUMBER OF SEQUENCES: 355 CORRESPONDENCE ADDRESSE: ADDRESSE: SEED and STREET: 6300 Columb
CITY: Seattle STATE: Washington COUNTRY: USA ZIP: 98104-7092 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compati OPERATING SYSTEM: PC-DOS SOFTWARE: Patentin Relea CURRENT APPLICATION NUMBER: US/1 FILING DATE: 25-Peb-2002 CLASSIFICATION NUMBER: US/0 PRILING DATE: 05-MAY-1998 ATTORNEY/AGENT INFORMATION: NAME: MAK1, David J.	cation US/10084843 20030143243A1 ION: Reed, Steven G. Skeiky, Yasir A.W. Dillon, Davin C. Campos Neto, Antor Houghton, Raymond Vedvick, Thomas S. Twardzik, Daniel J. Fodes, Michael J. Hendrickson, Ronal VENTION: COMPOUNDS VENTION: COMPOUNDS NCE ADDRESS: SEE: SEED and BERH SEE: SEED and BERH
CITY: Seattle STATE: Washington COUNTRY: USA ZIP: 98104-7092 TIER READABLE FORM: TIER READABLE FORM: TOMETHER: IBM PC compatible ODERATING SYSTEM: PC-DOS/MS COPERATING SYSTEM: PC-DOS/MS SOFTWARE: Patentin Release NT APPLICATION DATA: APPLICATION UNMBER: US/10/0 FILING DATE: 25-Feb-2002 CLASSIFICATION: «Unknown» APPLICATION INMBER: US/09/0 PILING DATE: 05-MAY-1998 NEY/AGENT INFORMATION: NAME: MAKI, DAVId J.	-843-46  tion No. US20030143243A1  AL INFORMATION: APPLICANT: Reed, Steven G. Skelky, Yasir A.W. Dillon, Davin C. Campos-Neto, Antonio Houghton, Raymond Vedvick, Thomas S. Twardzik, Daniel R. Lodes, Michael J. Hendrickson, Ronald C. TITLE OF INVENTION: COMPOUNDS AND NUMBER OF SEQUENCES: 355 CORRESPONDENCE ADDRESSE CORRESPONDENCE ADDRESSE: CORRESPONDENCE ADDRESSE:
CITY: Seattle STATE: Washington COUNTRY: USA ZIP: 98104-7092 TER READABLE FORM: TER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, NT APPLICATION DATA: APPLICATION NUMBER: US/10/084,843 FILING DATE: 25-Peb-2002 CLASSIFICATION: <unknown> APPLICATION NUMBER: US/09/072,967 FILLING DATB: 05-MAY-1998 NEY/AGENT INFORMATION: NAME: Maki, David J.</unknown>	
DS V. .0, V. , 843	METHODS FOR IMM OF TUBERCULOSIS
Version	DDS FOR IMMUN BERCULOSIS
n #1.30	IMM LOSIS
30	FOR IMMUNOTHERAPY CCULOSIS
	ERAPY

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-193-002-46
Sequence 46, Application US/10193002
Publication No. US20030135026A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.411C9
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO:
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
ADDRESSEE: 6300 Columbia Center,
CITY: Seattle
STATE: Washington
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                al Similarity
327; Conserv
                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ceschesasasacesareceseraceerecesassassassassarriresaseesarer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 327 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANTACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATAAGCAGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                           Houghton, Raymono
Vedvick, Thomas S.
Twardzik, Daniel R.
Twardzik, Daniel R.
Lodes, Michael J.
Hendrickson, Ronald C.
Hendrickson, Ronald C.
NVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS OF
TUBERCULOSIS
                                                                                         98104-7092
                                                                                                                                                                                                                                                                                                                                                    Skeiky, Yasir A.W.
Dillon, Davin C.
Campos-Neto, Antonia
                                                                                                                                                                                                                                                                                                                                                                                                         Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : (206) (
: (206) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 327; DB 13;
Pred. No. 2.5e-88;
; Mismatches 0;
                                                                                                                                                               701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
```

CURRENT APPLICATION DATA:

NUMBER OF SEQ ID NOS: 80 SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 34 LENGTH: 327

LENGTH: 32 TYPE: DNA

ORGANISM: Mycobacterium tuberculosis

```
뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-193-002-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-098-732A-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 34, Application US/10098732A Publication No. US20030175294A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
APPLICANT: Brannon, Mark
APPLICANT: Guderian, Jeffrey
APPLICANT: Guderian, Jeffrey
APPLICANT: Corixa Corporation
TITLE OF INVENTION: Heterologous Fusion Protein Constructs Comprising
TITLE OF INVENTION: Leishmania Antigen
FILE REFERENCE: 014058-012010US
CURRENT APPLICATION NUMBER: US/10/098,732A
CURRENT FILING DATE: 2003-04-29
PRIOR APPLICATION NUMBER: US 60/275,837
PRIOR APPLICATION NUMBER: US 60/275,837
PRIOR FILING DATE: 2001-03-13
                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Skeiky, Yasir
APPLICANT: Brannon, Marl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.417C9
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/072,596
FILING DATE: 05-MAY-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE DESCRIPTION: SEQ ID NO: 46:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 cedecaceaegacecearececeracecrececededacecaecraarrreceaecegarer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/10/193,002
FILING DATE: 10-Jul-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ccesces con a sa sa con a constante de la cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 327 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (206) 682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (206)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 327; DB 13;
Pred. No. 2.5e-88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

```
RESULT 4
US-10-084-843-112
; Sequence 112, Applicati
; Publication No. US20030
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Tb38-1 or 38-1 (MTb11) US-10-098-732A-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                       Local Similarity
nes 327; Conserva
                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRES
                                                                                                                                                                                                                                                                                                                                                                   TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGC/\AATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATACTCGAGGGCCGACGAGGAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTC()TCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGACGATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGCGCGCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGGCGCGGCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCTGCTTCCAAGAAGCAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGCTAATACGAAAAGAAACGGAGCAA 327
 NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.411C9
                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                            STATE: Washington
                                                                                                                                                                                                                                                                             CITY: Seattle
                                                                                                                                                                                                                                                                                          STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10084843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                  Lodes, Michael J.
Hendrickson, Ronald C.
INVENTION: COMPOUNDS AND METHODS FOR IMMUNOTHERAPY
AND DIAGNOSIS OF TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US20030143243A1
                                                                                                                                                                                                                                                                                                                                                                                                Houghton, Kayman
Vedvick, Thomas S.
Vedvick, Daniel R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skeiky, Yasir A.W.
Dillon, Davin C.
Campos-Neto, Antonio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed, Steven G.
                                                                                                                                                                                                                                                                                                                         ADDRESS:
                                                                                                                                                                                                                                                                                                        SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 327; DB 13;
Pred. No. 2.5e-88;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/193,002
FILING DATE: 10-Jul-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10
                                                                                                                                            CITY: Seattle
STATE: Washington
                                                                                                                    COUNTRY: USA
ZIP: 98104-7092
```

```
RESULT 5
US-10-193-002-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID US-10-084-843-112
                                                                                                                                                                                                                                                                                                   Sequence 107, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match Best Local Similarity
                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 112:
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                       NUMBER OF SEQUENCES:
                                                                                          Hendrickson, Ronald C. TITLE OF INVENTION: COMPOUNDS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250 GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 1200
TELEPHONE: 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAAGCAGGAACTCGACGAGATCTCGACGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                 CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1616 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                    Application US/10193002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                   US20030135026A1
                                                                                                                                            Campos-Neto, Antonia
Houghton, Raymond
Vedvick, Thomas S.
Twardzik, Daniel R.
                                                                                                                                                                                                                                                                Reed, Steven G.
                                                                                                                                                                                                                        Skeiky, Yasir A.W.
Dillon, Davin C.
                                                                                                                               Lodes, Michael J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97....
100.0%; F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (206) 622-4900
(06) 682-6031
                                                                         TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 318; DB 13;
Pred. No. 1.5e-85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NO:
                                                                                              METHODS FOR DIAGNOSIS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

Fifth

Avenue

Version

```
RESULT 6
US-09-023-588-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; SEQUENCE DESCRIPTION: SEQ ID NO: 107: US-10-193-002-107
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 67, Application US/09023588 Patent No. US20020081579A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 97.2%; Score 318; DB 13; Best Local Similarity 100.0%; Pred. No. 1.5e-85; Matches 318; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
APPLICANT: Alderson, Mark R.
TITLE OF INVENTION: METHOD FOR THE ISOLATION OF NOVEL ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (206) 682-603 INFORMATION FOR SEQ ID NO: 107:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023,588
                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                      CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                    STREET:
                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/072,596
FILING DATE: 05-MAY-1998
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION IMPORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                     98104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGACGAGGAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÁGAÁGCAGGAÁCTCGÁCGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1616 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Maki, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                               E: SEED and BERRY LLP 6300 Columbia Center,
                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1549
                                                                                                                                                                                                                                    701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         210121.417C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
MOLECULE TYPE: D.
ORIGINAL SOURCE:
ORGANISM: Myco
US-09-023-588-67
                                                            ; TYPE: DNA ; ORGANISM: Mycobacterium tuberculosis US-10-351-452-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-351-452-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  융
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                   APPLICANT: Sambandamurthy, Vasan
TITLE OF INVENTION: ATTENUATED MYCOBACTERIUM TUBERCULOSIS VACCINES
FILE REFERENCE: 96700/794
CURRENT APPLICATION NUMBER: US/10/351,452
CURRENT FILING DATE: 2003-01-24
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.2
SEQ ID NO 1
LENGTH: 9454
                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Albert Einstein College of Medicine of Yeshiva University
APPLICANT: Jacobs, Jr., William R.
APPLICANT: Hsu, Tsungda
APPLICANT: Hsu, Tsungda
APPLICANT: Bardarov, Stoyan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 67:
SEQUENCE CHARACTERISTICS:
LENGTH: 1617 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/10351452 Publication No. US20040001866A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 318; Conserv
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1413 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1233 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCGATGCCGCTACCCTCGCGCAGGAGGCGGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGGCGGGACGCCCCAGGCCGCGGGGGGGGCGCTTCCAAGAAGCAGCCAATAAGC 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCGGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAAAAGAAACGGAGCAA 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
  97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.2%; Score 318; DB 9; 100.0%; Pred. No. 1.5e-85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
  Score 318; DB 12;
Pred. No. 1.8e-85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     210121.445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1617;
                       Length 9454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

1352

S

닭

Ś 밁

맑

```
CURRENT APPLICATION NUMBER: US/10/140,045
CURRENT FILING DATE: 2002-05-08
PRIOR APPLICATION NUMBER: US/09/116,492A
PRIOR FILING DATE: 1998-07-16
PRIOR APPLICATION NUMBER: 60/252,631
PRIOR APPLICATION NUMBER: 60/252,631
PRIOR FILING DATE: 1997-07-16
NUMBER OF SEQ ID NOS: 39
SOFTWARE: PatentIn version 3.1
SEQ ID NO 37
LENGTH: 1069
TYDE: DNA
ORGANISM: Mycobacterium tuberculosis
US-10-140-045-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 37, Application US/10140045
Publication No. US20030092899A1
GENERAL INFORMATION:
APPLICANT: GICQUEL, BRIGITTE
APPLICANT: BERTHET, FRANCOIS.XAVIER
APPLICANT: ANDERSEN, PETER
APPLICANT: ANDERSEN, PETER B
TITLE OF INVENTION: FOLYNUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOB
TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENTS, AS W
FILE REFERENCE: 0660-0137-27X
FILE REFERENCE: 0660-0137-27X
                                                                                                                                                                                                                                                                                                                                                                            Ouery Match 96.8%; Score 316.4; DB 15; Best Local Similarity 99.7%; Pred. No. 4.3e-85;
                                                                                                                                                                                                                                                                                                                                                       Matches 317; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2022 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGC(\(\)\)GATCTCCGGCGACC
                                                                                                                                                                              598
                                                                                                                                                                                                                                                                  538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318;
                                                                                                                                                                                                                                                                                         -10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCCGATCTCCGGCCGACC
                                                                                                                                                                                                                       70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCNGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                  GCGCGGCGGGACGGCCGAGGCCGCGGGGGGGGGGGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                           TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGACGAGGAGCAGCAGCAGCCGCTGTCCTCGCAAATGGGCCT;CTGACCCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGNAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGGCGGGACGGCCCAGGCCGAGTGGTGCGCTTCCAAG)AAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2339
                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                Length 1069;
                                                                                                                                                                                                                                                                                                                                                       .
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2081
    777
                                           249
                                                                                       717
                                                                                                                                  189
                                                                                                                                                                              657
                                                                                                                                                                                                                     129
                                                                                                                                                                                                                                                                  597
                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                         RESULT 10
US-10-140-045-38
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 1277
TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
US-10-140-045-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-140-045-1
Sequence 38, Application US/10140045
Publication No. US20030092899A1
GENERAL INFORMATION:
APPLICANT: GICQUEL, BRIGITTE
APPLICANT: BERTHET, FRANCOIS-XAVIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/10140045
Publication No. US20030092899A1
GENERAL INFORMATION:
APPLICANT: GICQUEL, BRIGITTE
APPLICANT: BERTHET, FRANCOIS-XAVIER
APPLICANT: BERTHET, FRANCOIS-XAVIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: ANDERSEN, PETER B
APPLICANT: RASMUSSEN, PETER B
TITLE OF INVENTION: POLYNUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN P
TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENT
TITLE OF INVENTION: USING THE SAME
FILE REFERENCE: 0660-0137-27X
CURRENT APPLICATION NUMBER: US/10/140,045
CURRENT FILING DATE: 2002-05-08
PRIOR APPLICATION NUMBER: US/09/116,492A
PRIOR FILING DATE: 1998-07-16
PRIOR APPLICATION NUMBER: 05/252,631
PRIOR APPLICATION NUMBER: 60/252,631
PRIOR APPLICATION NUMBER: 60/252,631
PRIOR FILING DATE: 1997-07-16
                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     598 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                       778
                                                                                                                                                                                                                                                                                                                                   250
                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             538 AGACCGATGCCGCTACCCTCGGGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        250 GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          778 GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 AGACCGATGCCGCTACCCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 al Similarity
317; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCCGC
                                                                                                                                                                                                                              CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                       GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                   GGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                     AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCGGCGGGACGCCCCAGGCCGCGGTGGTGCCCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 316.4; DB 15; Length 1277; Pred. No. 4.4e-85; 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                         837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                              777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;.
```

밁

Ś 밁 S 밁

```
US-10-140-045-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-140-045-38
SEQ ID NO 4
LENGTH: 302
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/10140045
Publication No. US20030092899A1
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 96.8
Best Local Similarity 99.7
Matches 317; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn version 3.1 SEQ ID NO 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: POLYNUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOE TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENTS, AS WITHEN OF INVENTION: USING THE SAME FILE REFERENCE: 0660-0137-27X CURRENT ENVENTION: USING THE SAME FILE REFERENCE: 05060-0137-27X CURRENT FILING DATE: 2002-05-08 PRIOR APPLICATION NUMBER: US/09/116,492A PRIOR FILING DATE: 1998-07-16 PRIOR PRIOR PRIOR DATE: 1998-07-16 PRIOR PRIOR PRIOR DATE: 1998-07-16 PRIOR PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16
                                                                             TITLE OF INVENTION: POLYNUCLECTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOB TITLE OF INVENTION: UUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENTS, AS WITTLE OF INVENTION: USING THE SAME FILE REFERENCE: 0660-0137-27X CURRENT APPLICATION NUMBER: US/10/140,045 CURRENT FILING DATE: 2002-05-08 PRIOR APPLICATION NUMBER: US/09/116,492A PRIOR APPLICATION NUMBER: US/09/116,492A PRIOR FILING DATE: 1998-07-16 PRIOR FILING DATE: 1998-07-16 PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16 PRIOR FILING DATE: 1997-07-16
                                                                                                                                                                                                                                                                                                                    APPLICANT: GICQUEL, BRIGITTE
APPLICANT: BERTHET, FRANÇOIS-XAVIER
APPLICANT: ANDERSEN, PETER
APPLICANT: RASMUSSEN, PETER B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                             SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 1282
TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCGGCGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCGATGCCGCTACCCTCGGGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCCGACGAGGAGCAGCAGCAGCCCTCTCCTCGCAAATGGGCTTCTGACCCGCTAATA 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RASMUSSEN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ANDERSEN, PETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96.8%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 316.4; DB 1
Pred. No. 4.4e-85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
```

```
US-10-084-843-350
; Sequence 350, Applicat
; Publication No. US2003
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Mycobacterium tuberculosis US-10-140-045-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/072,967

APPLICATION NUMBER: US/09/072,967

FILING DATE: 05-MAY-1998

ATTORNEY/AGENT INFORMATION:

NAME: Maki, David J.

REGISTRATION NUMBER: 31,392

REFERENCE/DOCKET NUMBER: 210121.411C9

TELECOMMUNICATION INFORMATION:

TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                              CITY: Seattle
STATE: Washington
STATE: Washington
COUNTRY: USA
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Campos-Neto, Antonio
Houghton, Raymond
Vedvick, Thomas S.
Twardzik, Daniel R.
Lodes, Michael J.
Hendrickson, Ronald C.
TITLE OF INVENTION: COMPOUNDS AND ME
                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/084,843
FILING DATE: 25-Feb-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 355
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134 GCGCGGCGGGACGGCCCAGGCCGCGCGCGCTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACCGATGCCGCTACCCTCGGGCAGGCAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCCGACGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/10084843 o. US20030143243A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Skeiky, Yasir A.W.
Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 287.4; DB 1
Pred. No. 1.8e-76;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              METHODS FOR IMMUNOTHERAPY OF TUBERCULOSTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     701 Fifth Avenue
                                                                                                                                                                                                                                                                      Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 15; Length 302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
```

INFORMATION FOR SEQ ID NO: 350:

TELEPHONE: (206) 622-49 TELEFAX: (206) 682-6031

SEQUENCE CHARACTERISTICS

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
US-10-193-002-345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-084-843-350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 345, Applicat Publication No. US2003 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 291; Conserv
                                                  COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/10/193,002
APPLICATION INDEER: US/10/193,002
FILING DATE: 10-U1-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/072,596
FILING DATE: 05-MAY-1998
ATTORNEY/AGENT INFORMATION:
NAME: MAY: David T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: cDNA
SEQUENCE DESCRIPTION: SEQ ID NO: 350:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1286 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1346 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCCGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                         CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTTTGTGCCCCACAA 1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGCCGACGAGGAGCAGCAGCAGGCGCTCTCTCTCGCAAATGGGCTTTTTGACCCGCTA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAAGCÁGGAACTCGÁCGAGÁTCTCGACGAATATTCGTCÁGGCCGGCGTCCAATACTCGA 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGATCTCGACGAATATTTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCGGCGGGGACGGCCCAGGCCGCGGTGGTGCCTTCCAAGAAGCAGCCAATAAGC 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGGCGGGGACGGCCGCCGAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 2412 base pairs
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.417C9
                                         NAME: Maki,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/10193002
5. US20030135026A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hendrickson, Ronald C.
INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS OF
TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                        98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Houghton, Raymond
Vedvick, Thomas S.
Twardzik, Daniel R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skeiky, Yasir A.W.
Dillon, Davin C.
Campos-Neto, Antonia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lodes, Michael J.
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87.9%;
                                       David J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 287.4; DB 1
Pred. No. 2.3e-76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
```

```
LENGTH: 2412 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
SEQUENCE DESCRIPTION: SEQ ID NO: 34
US-10-193-002-345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-287-849-9
                                                                                                                                                                                                                                                 FILE REFERENCE: 014058-009020US
CURRENT APPLICATION NUMBER: US/99/287,849
CURRENT FILING DATE: 1999-04-07
PRIOR APPLICATION NUMBER: US 08/818,112
PRIOR FILING DATE: 1997-03-13
PRIOR APPLICATION NUMBER: US 08/942,578
PRIOR FILING DATE: 1997-10-01
PRIOR FILING DATE: 1997-10-01
PRIOR APPLICATION NUMBER: US 09/025,197
PRIOR APPLICATION NUMBER: US 09/056,556
PRIOR APPLICATION NUMBER: US 09/056,556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Reed, St
APPLICANT: Skeiky,
APPLICANT: Dillon,
                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 9, Application US/09287849
Patent No. US20020009459A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                    PRIOR APPLICATION NUMBER: US PRIOR FILING DATE: 1998-12-30 NUMBER OF SEQ ID NOS: 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Fusion Protiens of Mycobacterium tuberculosis Antigens TITLE OF INVENTION: and Their Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                          LENGTH: 7676
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (206) 682-60: INFORMATION FOR SEQ ID NO: 345:
OTHER INFORMATION: Description of Artificial Sequence:tetra-fusion OTHER INFORMATION: protein TbRa3-38kD-Tb38-1-DPEP (designated TbF-2)
                                      FEATURE:
                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1286 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1346 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130 GCGCGGCGGGGACGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC
                                                                                                                                                  PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Skeiky, Yasir A.W.
Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Corixa Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Campos-Neto, Antonio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Steven G.
                                                                                                                                                                                                                                    1998-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87.9%;
98.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (206)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       682-6031
                                                                                                                                                                                                                    US 09/223,040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 287.4; DB 1
Pred. No. 2.3e-76;
0; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  345:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCGCAAATGGGCTTTGTGCCCACAA 1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
RESULT 15
US-10-084-843-213
JS-10-084-843-213
Sequence 213, Application US/10084843
Publication No. US20030143243A1
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
Skeiky, Yasir A.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , NAME/KEY: CDS
, LOCATION: (5072)..(7480)
US-09-287-849-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local (imilarity
Matches 29); Conserv
            INFORMATION FOR
CITY: Seattle
STATE: Washington
COUNTRY: USA
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/084,843
FILING DATE: 25-Feb-2002
CLASSIFICATION NUMBER: US/09/072,967
RPILOR DATE: 05-MAY-1998
ATTORNEY/ACENT INFORMATION:
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.411C9
TELEPHONE: (206) 622-4930
TELEPHONE: (206) 622-4930
TELEPAC: 1206 S62-6031
NFORMATION FOR SEQ ID NO: 213:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Houghton, Raymond
Vedvick, Thomas S.
Vedvick, Thomas S.
Twardzik, Daniel R.
Lodes, Michael J.
Lodes, Michael J.
Hendrickson, Ronald C.
Hendrickson, Ronald C.
HOUENTION: COMPOUNDS AND METHODS FOR IMMUNOTHERAPY
AND DIAGNOSIS OF TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6534 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 6593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6414 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 6473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10 AGACCGATGCCCTACCCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCCGACGAGCAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTTGTGCCCACAA 6650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAAGCAGGAACTCGAAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCGGCGGGACGGCCCACGCCGCGCGCGCTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÁGACCGÁTGCCGCTACCCTCGCGCAGGAGGCAGTAATTTCGAGCGGATCTCCGGCGACC 6413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCGGCGGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 6533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87.9%;
ilarity 98.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Skeiky, Yasir A.W.
Dillon, Davin C.
Campos-Neto, Antonio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 287.4; DB 9; Length 7676; Pred. No. 2.7e-76; 0; Mismatches 6; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701 Fifth Avenue
```

```
; LENGTH: 7676 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-084-843-213
                                                                                 밁
                                                                                                                                                                                                                                                                                                     S
밁
                                                                                                                           S
                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                       몽
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 87.9%;
Best Local Similarity 98.0%;
Matches 291; Conservative
                                                                                                                                                                       6474
6594
                                                                                   6534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                             190
                                                                                                                                                                                                                                                              6414 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                       6354 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                       250
                                                                                                                                                                                                                 130
                                                                                                                                                                                                                                                                                                             70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                    10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC
                        GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTA 306
                                                                                                                      AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                      GCGCGGCGGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
GGGCCGACGAGGAGCAGCAGGAGCGCTGTCCTCGCAAATGGGCTTTGTGCCCACAA 6650
                                                                                   AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                       GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 287.4; DB 13; Length 7676; Pred. No. 2.7e-76; 0; Mismatches 6; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            213:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

Search completed: January 15, Job time: 2980 secs 2004, 09:43:45

6593

653

Thu Jan

15 09:52:36 2004

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
    000
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
    Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                             Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued_Patents_NA:*

1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*

5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/2/ina/backflles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-084-843-46
327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       January 15, 2004, 06:13:46; Search time 77 Seconds (without alignments) 1874.445 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             569978 seqs, 220691566 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCACGAGAGACCGATGCC.....TACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Copyright
  Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6 (c) 1993 - 2004 Compus
 US-08-818-112-46
US-08-818-111-46
US-09-056-556-46
US-09-072-596-46
US-09-072-596-112
US-08-818-111-112
US-08-818-111-112
US-08-818-111-112
US-09-072-596-107
US-09-03-840A-1
US-09-103-840A-1
US-09-116-492A-3
US-09-116-492A-3
US-09-116-492A-3
US-09-116-492A-3
US-09-116-492A-3
US-09-056-556-213
US-09-072-596-398
US-09-072-596-398
US-09-072-596-398
US-09-072-596-311
US-09-072-596-111
                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Compugen Ltd
Sequence 46, Appl
Sequence 46, Appl
Sequence 46, Appl
Sequence 112, App
Sequence 107, App
Sequence 107, App
Sequence 108, Appl
Sequence 10, Appl
Sequence 11, Appl
Sequence 1, Appl
Sequence 1, Appl
Sequence 1, Appl
Sequence 3, Appl
Sequence 37, Appl
Sequence 38, Appl
Sequence 37, Appl
Sequence 213, Appl
Sequence 213, Appl
Sequence 211, Appl
Sequence 213, Appl
Sequence 211, Appl
Sequence 211, Appl
Sequence 211, Appl
Sequence 211, Appl
Sequence 111, App
Sequence 113, App
Sequence 113, App
Sequence 111, App
Sequence 113, App
Sequence 113, App
                                                                                                                                                                                                                                                                                                                                                                                             Description
```

					- <del>, -</del>
3 & O	US-CUS-CUS-CUS-CUS-CUS-CUS-CUS-CUS-CUS-C		000	a	000
Query Matc Best Local Matches 3	Sequence Sequence Sequence Patent No GENERALI APPLIO COMM COUN COMM COUN APPLIO C		0 4 4 4 4 4 4 6 0 0 0 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1 C 1	1040000 1040000	29 31 31
fatch cal Simi	-112- e 46, e 6 46, e		37.2 37.2 37.2 36.6	4 4 C C C C C C C C C C C C C C C C C C	42.4 42.4 40.6
ilarity Conservat	12-46 Application 46, Application 46, Application 620969 INFORMATION: ANT: Reed, Ste ANT: Skeiky, Y ANT: Dillon, D ANT: Campos-Ne ANT: Houghton, ANT: Campos-Ne ANT: Twardzik, OF INVENTION: OF INVENTION: OF SEQUENCES: SEED an ET: 6300 Colum E: Washington ET: Washington ATING STEED AN ET: HOUGHTON ATING STEED AN ET: HOUGHTON INTER: ISA ATING SYSTEM: WARE: PATENTION D ATING SYSTEM: ICATION NUMBER: MARE: PATENTION INFORM SIFFCATION NUMBER: MARE: 13-MA SIFFCATION NUMBER: EY/AGENT INFORM SIFFCATION NUMBER: COG HORSES: 106) 68 2FAX: (206) 682 2FAX: (206) 682 2FAX: (206) 682 2FAX: 327 base p TH: 327 base p TH: 327 base p LOGY: linear		11.7 11.4 11.3 11.3 11.3 11.2	12.3 12.1 11.7 11.7 11.7	10044
100. y 100. rvative	Stev Stev Stev Stev Stev Stev Stev Stev		2331 466 534 3843 5337 477	6443 729 9960 609 1785	387 4403765 4411529 948
0,	US/0881811  ven G. asir A. W. avin C. to, Antonio Raymond Thomas S. Daniel R. COMPOUNDS A AND DIAGNOS 153 S: d BERRY LLP bia Center, piask ompatible pC-DOS/MS-D Release #1 VS/08/818 ATION: US/08/818 ATION: 05/08/818				
Score Pred. Mis	701 701 113 OE	ALI GNMENTS	US-09-252 US-09-091 US-09-252 US-09-252 US-09-252 US-09-252 US-09-684	5183745-5 US-09-252 US-08-822 US-09-252 US-09-252 US-09-252	US-09-072-5 US-09-103- US-09-103- US-09-252-9
327; DB 3; No. 4.6e-78; matches 0;	UBERCULO Sion #1.	ENTS	-991A-13809 -725-38 -91A-1533 -991A-1430 -991A-1588 -994-1 -843A-1	991A- 991A- 991A-	-596-113 3-840A-2 3-840A-1 -991A-2355
Length Indels	O IE STANO				
th 327; els 0;	IMMUNOTHERAPY SIS ue		Sequence Sequence Sequence Sequence Sequence Sequence Sequence	Patent No. Sequence Sequence Sequence Sequence Sequence	Sequence Sequence Sequence Sequence
Gaps	*		13809, A 38, Appl 1533, Ap 1430, Ap 1588, Ap 1, Appli 1, Appli	222555	113, Ape e 2, App e 1, App e 1, App 2355, A
0;		_		- 30 F 3 W	ָּהָבְּ <u></u> בְּׁיּׁה

밁

S 밁 ક 망 Ś 멍 S

5 ₽

```
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/818,111
FILING DATE: 13-MAR-1997
CLASSIFICATION HOMBER: 31,399
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.417C6
TELECOM MUNICATION INFORMATION:
TELEIHONE: (206) 622-4900
TELEI AX: (206) 622-4900
ITELEI AX: (206) 622-6031
INFORMATION: OFR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGYH: 327 base pairs
TYPE: nucleic acid
STRAI(DEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-08-818-11.-46
US-08-818-11.-46; Application US/08818111
; Patent No. 6338852
; GENERAL INFORMATION:
Reed, Steven G.
      Query Mat:th 100.0%; Score 37; DB 4;
Best Loca: Similarity 100.0%; Pred. No. 4.6e-78;
Matches "127; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICAT: Reed, Steven.

APPLICAT: Skeiky, Yasir A.W.
APPLICAT: Dillon, Davin C.
APPLICAT: Campos-Neto, Antonia
APPLICAT: Houghton, Raymond
APPLICAT: Vedvick, Thomas S.
APPLICAT: Twardzik, Daniel R.
APPLICAT: Twardzik, Compounds AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPINDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREEF: 6300 Columb
CITY: Seattle
STATE: Washington
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGCGCGCCGGCGGGACGGCCCAGGCCGCGTGGTGCGCTTCCAAGAAGCAG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGCGCGCGCGGGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAATAAGCAGAAGCAGGAACTCGACGAGGATCTCGACGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6300 Columbia Center,
                                                                                                                          single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOR DIAGNOSIS
                                                           Length 327;
         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TUBERCULOSIS
         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
         0
                                                                                                                          TO NO.

ACTERISTICS:

ACTERIST
                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-056-556-46
                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:

NAME: Maki, David J.

REGISTRATION NUMBER: 31,392

REFERENCE/DOCKET NUMBER: 2101:

TELECOMMUNICATION INFORMATION:

TELEPHONE: (206) 622-4900

TELEPAX: (206) 682-6031

INFORMATION FOR SEQ ID NO: 46:

SEQUENCE CHARACTERISTICS:

LENGTH: 327 base pairs

TYPER: NICH 154 acré
                                                                                           Query Match
Best Local Similarity
Matches 327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6350456
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 46, Application US/09056556 Patent No. 6350456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/056,556

FILING DATE: 07-APR-1998

CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Reed, Steven G.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
TITLE OF INVENTION: COMPOUNDS
NUMBER OP SEQUENCES: 241
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 6300 (
CITY: Seattle
STATE: Washing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H
1 CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGCACGAGAGACCGGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGGCGCGGCGGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGGCGCGCGCGGGACGGCCGCCCAGGCCGCGGTGGTGCCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: SEED and BERRY LLP
6300 Columbia Center,
                                                                                           100.0%; Silarity 100.0%; Silarity 100.0%; Silarity 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                210121.457
                                                                                              Score 327; DB 4;
Pred. No. 4.6e-78;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METHODS FOR THE
                                                                                                                                                Length 327;
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PREVENTION
                                                                                              0;
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

TREATM

ð B δ 뮹 ঠ 밁

300 300

240 240 180 180 120 120 60

```
US-09-072-596-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 46, App
Patent No. 64583
Query Match 100.0%; Score 327; DB 4; Length 327; Best Local Similarity 100.0%; Pred. No. 4.6e-78; Matches 327; Conservative 0; Mismatches 0; Indeks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
                                                                                                                                                                                  TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 2101
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                       ZIP: 98104-7092
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Houghton, Raymond
APPLICANT: Vedvick, Thomas S.
APPLICANT: Twardzik, Daniel R.
APPLICANT: Lodes, Michael J.
APPLICANT: Hendrickson, Ronald C.
APPLICANT: Hendrickson, Ronald C.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS OF NUMBER OF SEQUENCES: 350
                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/072,596 FILING DATE: 05-MAY-1998 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 AGTGGCGCGCGGCGGGGACGGCCGCCCAGGCCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 AGTGGCGCGCGCGGGGGACGGCCCAGGCCGCGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                  : 327 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09072596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Skeiky, Yasir A.W. Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Campos-Neto, Antonia
                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEED and BERRY LLP
                                                                                                           single
                                                                                                                                                                                   46:
                                                                                                                                                                                                                                                            210121.417C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701 Fifth Avenue
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TUBERCULOSIS
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-818-112-112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 112, Application US/08818112 Patent No. 6290969
                                                                                                                                             TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 112:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                    CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 1616 base pair
                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                              FILING DATE: 13-MAR-1997
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Seattle
                                                       TOPOLOGY:
                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                 H: 1616 base pairs nucleic acid NDEDNESS: single CGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Houghton, Raymona
Vedvick, Thomas S.
Twardaik, Daniel R.
INVENTION: COMPOUNDS AND M
INVENTION: AND DIAGNOSIS C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Skeiky, Yasir A.W. Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Campos-Neto, Antonio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Reed, Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEED and BERRY LLP
 97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              153
                                                                                                                                                                                                                                                                                                                                 US/08/818,112
                                                                                                                                                                                                                        210121.411C6
 Score 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327
 DB 3;
```

```
SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGCGCGCGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGCGCGCGCGGGGACGGCCGCCCAGGCCGCGGTGCTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                    701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METHODS FOR IMMUNOTHERAPY OF TUBERCULOSIS
```

Length 1616;

```
; STRA DEDNESS: sir
; TOPO JOGY: linear
US-08-818-111-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
US-08-818-1:1-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 107
Patent No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                          ZIP: 98104-7092
ZIP: 98104-7092
ZIP: 98104-7092
COMPUTI:R READABLE FORM:
MEDLIM TYPBE: FIDDY disk
COMPUTER: IBM PC compatible
OPERIVING SYSTEM: PC-DOS/MS-DOS
SOPTINARE: Patentin Release #1.0, V
CURREN' APPLICATION DATA:
APPL:CATION NUMBER: US/08/818,111
FILIIG DATE: 13-MAR-1997
CLASHIFICATION: 424
ATTORNIY/AGENT INFORMATION:
NAME: Maki, David J.
REGHITTRATION NUMBER: 31,392
REFE:ENCE/DOCKET NUMBER: 210121.41
TELE HONE: (206) 622-4900
                                                            TELE FAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 107:
SEQUEN IN CHARACTERISTICS:
LENGTH: 1616 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESIONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRINSEE:
STRENT: 6
                                                                                                                                                                                                                                                                                                                                                                                                COUN' RY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLICINT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ! NFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                  Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCGGCGGGACGGCCCACGCCGCGCGCGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCGGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: SEED and BERRY LLP 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Houghton, Raymonia
Vedvick, Thomas S.
Twardzik, Daniel R.
Twardzik, Daniel R.
Twardzik, Daniel R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08818111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Skeiky, Yasir A.W.
Dillon, Davin C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Campos-Neto, Antonia
                               single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                              US/08/818,111
                                                                                                                                                                210121.417C6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pred. No. 1.6e-75;
if Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   701 Fifth Avenue
                                                                                                                                                                                                                                                                                                  Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
```

```
US-09-056-556-112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 112, Applica Patent No. 6350456 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
Query Match 97.:
Best Local Similarity 100
Matches 318; Conservative
                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEPAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 112:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: MAKI, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Reed, Steven G.
APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Dillon, Davin C.
TITLE OF INVENTION: COMPOUNDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                             TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 6300 Colu
CITY: Seattle
STATE: Washington
                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                             LENGTH: 1616 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    112, Application US/09056556
o. 6350456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGACGAGCAGCAGCAGCAGCCTGTCCTCCCAAATGGGCTTCTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAAGCAGGAACTCGACGAGATCTCGACGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCGGCGGGACGGCCGAGGCCGCGGGGGGGGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGGCGGGACGGCCGCCAGGCCGCCGCTGCTGCCCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGAACC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: SEED and BERRY LLP 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Steven G.
                97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPOUNDS AND METHODS FOR THE PREVENTION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
Score 318; DB 4; ; Pred. No. 1.6e-75; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 318; DB 4;
Pred. No. 1.6e-75;
                                                                                                                                                                                                                                     210121.457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1616;
                               Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TREATME
```

Indels

0;

Gaps

```
RESULT 8
US-09-072-596-107
; Sequence 107, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
US-09-072-596-107
                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 2101:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEPHONE: (206) 682-6031
INFORMATION FOR SEQ ID NO: 107:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/072,596
FILING DATE: 05-MAY-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                             LENGTH: 1616 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Seattle
STATE: Washington
                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
                                                                                                                                                                                                                                                                                                                                                                                                    98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6458366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T: Lodes, Michael J.
T: Hendrickson, Ronald C.
INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCGACGAGGAGCAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGJCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCGGCGGGACGGCCCCAGGCCGCCGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCCGACGAGGAGCAGCAGCCGCTGTCCTCGCAAATGGGCT"CCTGACCCGCTAATA 1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: SEED and BERRY LLP 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09072596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Houghton, Raymond
Vedvick, Thomas S.
Twardzik, Daniel R.
                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Skeiky, Yasir A.W.
Dillon, Davin C.
                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Campos-Neto, Antonia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                        210121.417C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         701 Fifth Avenue
                                                                                                                                                                                                                                                                                                              Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TUBERCULOSIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
, MOLECULE TYPE:
US-08-390-878-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-390-878-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Sim
Matches 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 16, Application US/08390878 Patent No. 5700683
                                                                                                                                                               APPLICATION NUMBER: US/08/390
FILING DATE: 17-FEB-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HUNTER, Tom
REGISTRATION NUMBER: 18,498
REFERENCE/DOCKET NUMBER: 1537
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                               TELEFAX: 415/543/5043
INFORMATION FOR SEQ ID NO: 16:
                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Stover, Charles K.
APPLICANT: Mahairas, Gregory G.
TITLE OF INVENTION: VIRULENCE-ATTENUATING GENETIC DELETIONS
NUMBER OF SEQUENCES: 18
                                                                                                            SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend Khourie and Crew
STREET: One Market Plaza, Steuart Street Tower, 20th
                                                       STRANDEDNESS: single
                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: One Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1292 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          94105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCGACGAGGAGCAGCAGCAGCCAGCCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ÁGAAGCAGGAACTCGÁCGAGATCTCGÁCGAATATTCGTCAGGCCGGCGTCCAATACTCGA 1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCGGCGGGGACGGCCCAGGCCGCGCGCGCGCTGCTGCCCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                     linear
                 (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97.2%; Score 318; DB 4; ]
100.0%; Pred. No. 1.6e-75;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                        US/08/390,878
                                                                                                                                                                                                          15371A-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
```

Query Match Best Local Similarity

97.2%;

Score 318; DB 1; Pred. No. 2.8e-75;

Length 16885;

```
밁
                       8
                                                   B
                                                                                ક
                                                                                                            밁
                                                                                                                                      Ś
                                                                                                                                                                                          ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-103-84)A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: FLEISCHMAN, Robert D.
APPLICANT: FLEISCHMAN, ROBERT
APPLICANT: WHITE, Owen R.
APPLICANT: VENTER, John C.
APPLICANT: VENTER, John C.
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT FELLING NUMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOPTWARE: PACENTIN VEY. 2.1
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/09103840A Patent No. 6294328
                                                                                                                                                                                                                                         Query Match
Best Loca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                  LENGTH: 4403765
TYPB: DNA
ORGANISN: Mycobacterium tuberculosis
                                                                                                            4344517
                                                      4344637
                                                                                                                                                                      43445:17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                459 ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        453!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               447::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      441:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13(
                                                                                                                                                                                                                             :18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318;
                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1
                                                                                                                                          ö
                                                                                                                                                                                                                          n 97.2%; Score 318; DB 3; 1
Similarity 100.0%; Pred. No. 9.8e-75;
18; Conservative 0; Mismatches 0;
                                                                                                                                                                    AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC 4344596
                                                                                                                                                                                      AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC
                                                                     GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 4651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGCGGCGGGGCCGCCCAGGCCCGCGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCGGCGGCGACGCCCAGGCCGCGCGGTGCGCTTCCAAGAAGCAGCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ### AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                               TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
               AGAAGCAGGAACTCGACGAGATCTCGACGAATATTTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                               TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGACGAGCAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
 AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                      Length 4403765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                           129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   249
                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129
                          249
                                                      4344716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           69
                                                                                                               4344656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4471
 4344776
                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
GENERAL INFORMATION:
APPLICANT: FLEISCHMAN, Robert D.
APPLICANT: HHITE, Owen R.
APPLICANT: FRASER, Claire M.
APPLICANT: VENTER, JOHn C.
APPLICANT: VENTER, JOHn C.
TITLE OF INVENTION: DNA SEQUENCES FOR STRAIN
TITLE OF INVENTION: TUBERCULOSIS
FILE REFERENCE: 24366-20007.00
CURRENT APPLICATION UNMBER: US/09/103,840A
CURRENT FILING DATE: 1998-06-24
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 1
RESULT 12
US-09-116-492A-37
US-09-116-492A-37
Sequence 37, Application US/09116492A
Patent No. 6436409
Patent No. 6436409
Patent No. 6436409
PATENT OF LOUIS APPLICANT: BERCHET, FRANCOIS-XAVIER
APPLICANT: ANDERSEN, PETER
APPLICANT: RASMUSSEN, PETER B
TITLE OF INVENTION: POLYNUCLEOTIDE FUNCTIONALLY CODING FOR TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE
TITLE OF INVENTION: USING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LENGTH: 4411529
; TYPE: DNA
; ORGANISM: Mycobacterium tuberculosis
; OTHER INFORMATION: H37RV
US-09-103-840A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-09-103-840A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application Patent No. 6294328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                             4352584
                                                                                                                                                                                                                                                                                                                   4352524
                                                                                                                                                                                                                                                                                                                                                                                       4352464
                                                                                                                                                                                                                                                                                                                                                                                                                                                        4352404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4352344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4352284 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4344837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4344777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
les 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                                              310
                                                                                                                                                                                                                                                                                                                                                   250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                            AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCGGCGGGACGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCGGCGGGACGGCCGAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAAACCCAGATCGACCAGGTGGAGGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTTCTGACCCCGCTAATA
                                                                                                                                                                                                                                               CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                 GGGCCGACGAGCAGCAGCAGCGCCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                                        GGGCCGACGAGGAGCAGCAGCAGGCGCCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                     CGAAAAGAAACGGAGCAA 4344854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGACGAGGAGCAGCAGCGCCTGTCCTCGCAAATGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/09103840A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.2%;
                                                                                                                                                                                                                                               4352601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 318; DB 3;
Pred. No. 9.8e-75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN ANALYSIS IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 4411529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MYCOBACTERIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                       4352
                                                                                                                                                                                                                                                                                                                                                                                                                         249
                                                                                                                                                                                                                                                                                                                   4352583
                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                                                                         4352463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4352403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4352343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>.</u>,
```

THE LHP PROTEIN FROM MYCOB!
DERIVATIVE FRAGMENTS, AS WI

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
US-09-116-492A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-116-492A-37
                                                                                                     JS-09-116-492A-1
                                                                                                                                                                     GENERAL INFORMATION:

APPLICANT: GICQUEL, BRIGITTE

APPLICANT: BRIGITE

APPLICANT: BRIGITE

APPLICANT: ANDERSEN, PETER

APPLICANT: ANDERSEN, PETER

APPLICANT: RASMUSSEN, PETER B

TITLE OF INVENTION: POLYNUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOB

TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENTS, AS W

TITLE OF INVENTION: USING THE SAME

FILE REFERENCE: 0.660-0.137-27X

CUBRENT APPLICATION NUMBER: US/09/116,492A

CURRENT FILING DATE: 1998-07-16

PRIOR FILING DATE: 1997-07-16

PRIOR FILING DATE: 1997-07-16

PRIOR FILING DATE: 1997-07-16

NUMBER OF SEQ ID NOS: 39

SOFTWARE: Patentin version 3.1
                                       Query Match
Best Local Similarity
Matches 317; Conserv
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09116492A
Patent No. 6436409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 317; Conserv
                                                                                                                                                            SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 0660-0137-27X
CURRENT APPLICATION NUMBER: US/09/116,492A
CURRENT FILING DATE: 1998-07-16
PRIOR APPLICATION NUMBER: 60/252,631
PRIOR FILING DATE: 1997-07-16
NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin version 3.1
                                                                                                                LENGTH: 1277
TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 1069
TYPE: DNA
ORGANISM: Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538 AGACCGATGCCGCTACCCTCGGGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGC(\(\frac{1}{3}\)ACCGATGCCGAGCGACC
                10
AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCGACGAGGAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGG/CGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGGCGGGACGGCCCCAGGCCGCGGTGGTGCCCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ĊĠŔŔŔŔĠŔŔŔĊĠĠŔĠĊŔŔ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGGCGGGACGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                             Conservative
                                                        96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                            ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                            Score 316.4; DB 4;
Pred. No. 4.1e-75;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 316.4; DB 4; Pred. No. 3.9e-75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                       Length 1277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                             Indels
                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                            Gaps
                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                            0
                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
 S
                              문
                                                                                      밁
                                                                                                              Ş
                                                                                                                                              밁
                                                                                                                                                                         Ś
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Mycobacterium tuberculosis
US-09-116-492A-38
                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin version 3.1
SEQ ID NO 38
LENGTH: 1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 38, Application US/09116492A Patent No. 6436409
                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                         Best
                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -09-116-492A-38
                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                        Local Similarity 99.7
nes 317; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               658
                               777
                                                        250
                                                                                      717
                                                                                                                   190
                                                                                                                                                657
                                                                                                                                                                                                        597
                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130
                                                                                                                                                                                                                                                                                             10
                                                                                                                                                                                                                                     70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                      96.8%;
99.7%;
                                                                                                                                                                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                                                                                                                                                       Score 316.4; DB 4
Pred. No. 4.1e-75;
0; Mismatches 1
```

```
598 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                            538 AGACCGATGCCGCTACCCTCGGGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                            70 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                              AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                  GCGCGGCGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                   GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                         AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                      GCGCGGCGGGACGCCCACGCCGCGGGGGGGGGGGCTTCCAAGAAGCAGCCAATAAGC
GGGCCGACGAGCAGCAGCAGCCCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA
837
                                                      309
                                                                                                            777
                                                                                                                                                               249
                                                                                                                                                                                                                      717
                                                                                                                                                                                                                                                                            189
                                                                                                                                                                                                                                                                                                                                  657
                                                                                                                                                                                                                                                                                                                                                                                        129
                                                                                                                                                                                                                                                                                                                                                                                                                                              597
```

GENERAL INFORMATION:

APPLICANT: GICQUEL, BRIGITTE

APPLICANT: BERTHET, FRANCOIS-XAVIER

APPLICANT: ANDERSEN, PETER

APPLICANT: RASMUSSEN, PETER B

TITLE OF INVENTION: FOLYNUCLECTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOB!

TITLE OF INVENTION: FOLYNUCLECTIDE FUNCTIONALLY ACTIVE DERIVATIVE FRAGMENTS, AS WE

TITLE OF INVENTION: USING THE SAME

FILE REFERENCE: 0660-0137-27X

CITCLE REFERENCE: 0660-0137-27X CURRENT APPLICATION NUMBER: US/09/116,492A CURRENT FILING DATE: 1998-07-16 PRIOR APPLICATION NUMBER: 60/252,631 PRIOR FILING DATE: 1997-07-16 DB 4;

Length

1282;

130 GCGCGGCGGGACGCCCAGGCCCGAGGCCGCTGCGCTTCCCAAGAAGCAGCCAATAAGC AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCCGGCGACC CGAAAAGAAACGGAGCAA 327 GGGCCGACGAGCAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA GCGCGGCGGGACGGCCGCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG AGACCGÁTGCCGCTACCCTCGGGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA Indels 0; Gaps 836 309 776 249 716 189 656 129 596 69 0,

밁

```
US-09-116-492A-4

US-09-116-492A-4

Sequence 4, Application US/09116492A

Patent No. 6436409

GENERAL INFORMATION:

APPLICANT: GICQUEL, BRIGITTE

APPLICANT: ANDERSEN, PETER

TITLE OF INVENTION: POLYMUCLEOTIDE FUNCTIONALLY CODING FOR THE LHP PROTEIN FROM MYCOB

TITLE OF INVENTION: TUBERCULOSIS, ITS BIOLOGICALLY ACTIVE DERIVATIVE FRAGMENTS, AS W

TITLE OF INVENTION: USING THE SAME

FILE REFEISHCE: 0660-0137-27X

CURRENT APPLICATION NUMBER: US/09/116,492A

CURRENT FILING DATE: 1998-07-16

PRIOR FALING DATE: 1998-07-16

PRIOR FILING DATE: 1997-07-16

PRIOR FILING DATE: 1997-07-16

SEQ ID NO: 39

SOFTWAKE: PATENTIN Version 3.1

SEQ ID NO: 39

SOFTWAKE: PATENTIN VERSION 3.1
Search completed: January 15, 2004, 06:15:36 Job time: : 4 secs
                                                                                                                            ঠ
                                                                                                                                                                                밁
                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Matc: 87.9%; Score 287.4; DB 4; Length 302; Best Local Similarity 99.7%; Pred. No. 1.4e-67; Matches 238; Conservative 0; Mismatches 1; Indels 0
                                                                                                                       25 0 GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTG 298
                                                                                                                                                                                  74 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 133
                                                                                                                                                                                                                                                                                                                                                                                                  7) TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGAGGGCCAGTGGCGCG 129
                                                                                             GGGCCGACGAGGAGCAGCAGCAGCGCCTCTCTCGCAAATGGGCTTCTG 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
```

Title: Perfect score: Sequence:

US-10-084-843-46 327

CGGCACGAGAGACCGATGCC..

TACGAAAAGAAACGGAGCAA 327

OM nucleic on:

nucleic search, using sw model

Copyright

GenCore version 5.1.6 (c) 1993 - 2004 Compugen

Ltd.

January 15,

2004, 06:13:46;

; Search time 1607 Seconds (without alignments) 8324.485 Million cell updates/sec

Scoring table:

IDENTITY\_NUC Gapop 10.0 ,

Gapext

Database

GenEmbl:\*

gb\_htg:\*
gb\_in:\*
gb\_om:\*

gb\_pat:\*
gb\_ph:\*
gb\_ph:\*

em\_fun:\*
em\_hum:\*
em\_in:\*

em\_mu:\*
em\_on:\*
em\_on:\*
em\_ov:\*
em\_pat:\*
em\_pl:\*
em\_pl:\*
em\_pl:\*
em\_ro:\*
em\_ro:\*
em\_un:\*
em\_htg\_hum:\*
em\_htg\_inv:\*

Post-processing: Minimum Match 0% Maximum Match 100 Listing first 45

100%

summaries

Minimum Total number

DB DB seq

length:

2000000000

of hits satisfying chosen parameters:

5777422

2888711 seqs, 20454813386 residues

em\_htgo\_hum:\*
em\_htgo\_mus:\*
em\_htgo\_other:\*

REFERENCE AUTHORS

Unknown Unknown

Unclassified.

1 (bases 1 to 327)

1 (bases 1 to 327)

Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., Campos-Neto, A., Vedvick, T.S. and Twardzik, D.R.

Houghton, R.,

immunotherapy and diagnosis of

Compounds and methods for tuberculosis

em\_htg\_mus:\*
em\_htg\_pln:\*
em\_htg\_rod:\*
em\_htg\_mam:\*
em\_htg\_vrt:\*
em\_sy:\*

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## AR169194 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM Result No. 316.4 316.4 316.4 292.8 292.8 287.4 287.4 287.4 287.4 287.4 287.4 287.4 287.4 287.4 Score Sequence 46 AR169194 AR169194.1 AR169194 Query Match 83.2 396 83.2 396 83.2 396 83.2 396 83.2 396 83.2 396 83.2 396 83.2 396 83.2 708 93.6 4078 926.0 4078 926.0 344050 100.0 97.2 100.0 100.0 46 1616 1616 1616 15155 16885 17499 19300 278492 1069 1277 Length 302 2412 7676 7676 7676 7676 3572 855 1616 1616 1069 GI:17906991 from patent US 6290969. B BD069343 MLDNAL45G MLCB628 MLEPRTN1 MOTAPOL AR194883 AR233155 AX429708 BD006383 BD006503 AR223439 AR223449 AR223449 AF419854 AR233412 AR233390 AR233213 BD006541 BD006541 AR23329 AR23329 AR169208 AR182498 AR194881 AR233153 AX429704 BD006381 BD006501 AE007190 AR169194 AR182484 AR1824867 AR293139 AX4296367 BD006367 BD006487 AF004671 AR169210 AR182500 MBU34848 MTV027 BX248347 SUMMARIES ALIGNMENTS 327 bp DNA linear AR182500 Sequence AR194883 Sequence AR233155 Sequence AX429708 Sequence BD0065083 Compounds BD006503 Compounds 186262 Sequence 16 U34848 Mycobacteri AL022120 Mycobacte BX248347 Mycobacte BX224333 Sequence AR223434 Sequence AR223434 Sequence AR419854 Mycobacte BD069327 Compounds AF004671 Mycobacte AR169208 Sequence AR182498 Sequence AR223412 Sequence AR233302 Sequence BD006381 Compounds BD006501 Compounds AE007190 Mycobacte AR194881 Sequence AR233153 Sequence AX429704 Sequence X90946 M.leprae L4 Y14967 Mycobacteri AR194941 Sequence AR233213 Sequence BD006367 Compounds BD006487 Compounds AR233139 Sequence AX429638 Sequence Description AR194867 Sequence PAT 17-DEC-2001 Sequence Sequence Sequence Compounds Compounds Sequence Sequence Sequence

```
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
AR182484
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
FEATURES
                        ঠ
                                                                        B
                                                                                                                ঠ
                                                                                                                                                            밁
                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 3:7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
12:
                                    12:
                                                                            6:
                                                                                                                          6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                         ( bases 1 to 327)
( chases 1 to 327)
( leed, S.G., Skeiky, Y.A.W., Dillon, D.C., Campos-Neto, A.
(leed, S.G., Skeiky, Y.A., Skeiky, D.R., Skeiky, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \R182484

3equence 46

\R182484

\R182484.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jnknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jnknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inclassified.
                                                                            CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATACTCGAGGGCCGAGGAGGAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGCGCGCGCGGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
AGTGGCGCGCGCGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                   AGTGGCGCGGCGGCGGGGGACGGCCCAGGCCGGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                        CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                         100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 6290969-A 46 18-SEP-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="unknown"
95 c 111 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:20225691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from patent
                                                                                                                                                                                                                                                              <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 327; DB 6;
Pred. No. 3.2e-55;
; Mismatches 0;
                                                                                                                                                                                                                                                              Score 327; DB 6;
Pred. No. 3.2e-55;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     327 bp
US 6338852.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Campos-Neto, A.,
                                                                                                                                                                                                                                                                                                       Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT 20-APR-2002
                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Houghton, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
180
                                        180
                                                                                    120
                                                                                                                               120
                                                                                                                                                                          60
                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                 0
```

RESULT 4
AR233139
LOCUS
DEFINITION
ACCESSION

AR233139 Sequence AR233139 AR233139.

46 from

327 bp patent US 6458366.

DNA

linear

'n

GI:27275575

VERSION KEYWORDS SOURCE

Unknown. Unknown. Unclassified.

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
AR194867
LOCUS
DEFINITION
                                          В
                                                                Ś
                                                                                                             Ś
                                                                                                                                         밁
                                                                                                                                                             ঠ
                                                                                                                                                                                       밁
                                                                                                                                                                                                            8
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
밁
               S
                                                                                           맑
                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 327; DB 6; Best Local Similarity 100.0%; Pred. No. 3.2e-55; Matches 327; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                        Unclassified.
Unclassified.
1 (bases 1 to 327)
1 (bases 1 to 327)
1 (constant of the prevention and tuberculosis infection tuberculosis infection 26-FBB-2002;
L. Patent: US 6350456-A 46 26-FBB-2002;
2 1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
301
                     301
                                            241
                                                                    241
                                                                                            181
                                                                                                                  181
                                                                                                                                          121
                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                        61
                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AR194867
Sequence 46
AR194867
AR194867.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unknown.
Unknown.
                                                                                                                                                                                                                                        _
                                                                                                                                                                                       CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                    CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                        CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
           CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                           AATACTCGAGGĠCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                           CCAATAAGCAGAAGCAGGACTCGACGACGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                         CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                         AGTGGCGCGGCGCGGGGGACGGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGACGAATATTCGTCAGGCCGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                              AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                           AGTGGCGCGCGCGCGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG 180
                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46
                                                                                                                                                                                                                                                                                                                                                organism="unknown"
95 c 111 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GI:20244304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                327 bp
US 6350456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       327
327
                                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                                                            Length 327;
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                         and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT
                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-APR-2002
                                                                                                                                                                                                                                                                                       Gaps
                                                                     300
                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                               300
                                                                                             240
                                                                                                                                                                  180
                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
```

300

240

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
AX429638
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                    문
                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCESSION
                                                                                                Query Match
Best Local S
Matches 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unidentified unidentified unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l (bases 1 to 327)

Red(S.G., Skeiky,Y.A.W., Dillon,D.C., Campos-Neto,A., Houghton,R.,

Vedvick,T.S., Twardzik,D.R., Lodes,M.J. and Hendrickson,R.C.

Compounds and methods for diagnosis of tuberculosis

Patent: US 6458366-A 46 01-OCT-2002;
                                                                                                                                                                                                                                                                                                                       Patent:
                                                                                                                                                                                                                                                                                                                                                                                Reed, S.G., Skeiky, Y.A., Dillon, D.C., Campos-Neto, A., Vedvick, T.S. and Twardzik, D.R.
Compounds and methods for immunotherapy and diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 46
AX429638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX429638.1 GI:21540887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX429638
                                                                                                                                                                                                                                                                                                                                                           tuberculosis
                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAATAAGCAGAAGCAGGAACTCGACGACGACGACGACGACGATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGCGCGCGCGGGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGGTCGACGGCAGGTT\GTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                              CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAAT;GGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAAT\GGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGGCGCGCGCGCGGGACGGCCGCCCAGGCCGCGGTGCTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; ilarity 100.0%; Conservative 0
                                                                                                100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                              EP 1203817-A 46 08-MAY-2002;
CORPORATION (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
1. .327
                                                                                                                                                                                            /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
95 c 111 g 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="unknown"
95 c 111 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 327; DB 6;
Pred. No. 3.2e-55;
; Mismatches 0;
                                                                                              Score 327; DB 6;
Pred. No. 3.2e-55;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327 bp
EP1203817.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327
                                                                                                                                                                                                    42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42
                                                                                                                                                                                                    rt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                     Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                    diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT 21-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                          Houghton, R.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ٥,
                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                       60
                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
BD006367
LOCUS
                                       밁
                                                                     S
                                                                                                                     밁
                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
S
                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                  Query Match
Best Local S
Matches 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
  121
                                                                                                                                                                                                    al Similarity
327; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                         61
                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                       PI RAYMOND HOUGHTON, THOMAS S VEDVICK, DANIEL R TWARDZIK, PI MICHAEL J LODES
PC C12N15/31, C07K14/35, C07K16/12, C12Q1/68, C12N15/62, G01N33/53
Strandedness: Single;
CC Topology: Linear;
FH Key Liocation/Qualifiers
FH Key 1. 327
FT source /organism='Unidentified'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OS Unid
PN JP 2
PD 16-J
PF 07-O
PR 11-O
STEVEN G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 (bases 1 to 327)
Reed,S.G., Skeiky,Y.A.W., Dillon,D.C., Neto,A.C., Houghton,R., Vedvick,T.S., Twardzik,D.R. and Lodes,M.J.
Compounds and methods for diagnosis of Tuberculosis Patent: JP 2001500383-A 46 16-JAN-2001;
CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Compounds and methods for BD006367 BD006367.1 GI:18634738 JP 2001500383-A/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCC
                                                                                                                                            CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
  AGTGGCGCGGCGCGGGACGGCCGCCCAGGCCGGTGGTGCGCTTCCAAGAAGCAG
                                                                         CCGGCGACCTGAAAACCCCAGATCGACCAGGTGGAGGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCTAATACGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGCGCGCGCGCGGGGGACGGCCGCCCAGGCCGGTGGTGCTGCCCAAGAAGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGCGCGCGCGGGGGGGGCCGCCCAGGCCGCGCTGGTGCGCTTCCAAGAAGCAG
                                                                                                                                                                                                  100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unidentified
10-2001500383-A/46
10-2001500383-A/46
10-2001
10-2001
10-2001
11-0CT-1997 US
11-0CT-1996 US
11-0CT
                                                                                                                                                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                                      മ
                                                                                                                                                                                                                                                                                                                                                                                                /organism='Unidentified'.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                  /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
95 c 111 g 4
                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                    Score 327; DB 6;
Pred. No. 3.2e-55;
Nismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           327 bp I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                           42 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA linear
s of Tuberculosis.
                                                                                                                                                                                                                                            Length 327;
                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08/818111
ANTONIO
                                                                                                                                                                                                    0;
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
    180
                                           120
                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
```

റ്റ

```
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 7
BD006487
LOCUS
                    밁
                                       S
                                                                                                                                                                        BASE C
                                                             뭥
                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                       Query Match
Best Local Similarity
Matches 32"; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                   COUNT
                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
12]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD00(487.1 GI:18634
JP 2(01501832-A/46.
unidentified
unidentified
                      63
                                             61
                                                                                                                                                                                                                                                       MIC:ABL J LODES
PC C12N15/31,C07K14/35,A61K39/04,A61K4B/00,A61K49/00,C12N15/62,PC C07K19/00,
PC C07K19/00,
PC G01N33/50,G01N33/60,G01N33/569,C12N1/19,C12N1/20,C12N1/21,P0 C12N5/10/
PC (C12N1/21,C12R1:19)
PC (C12N1/21,C12R1:19)
CC Topology: Linear;
FH Key Location/Qualifiers
FH Key Location/Qualifiers
FT source 1.327
FT source /organism='Unidentified'.
                                                                                                                                                                                                                                                                                                                                                                                                               OS Unidentified

PN J2001501832-A/46

PD 13-FEB-2001

PF 07-OCT-1997 JP 1998518456

PR 11-OCT-1996 US 08/730510,13-MAR-1997 US

STEVEN G REED, YASIR A W SKEIKY, DAVIN C DILLON, PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ()ases 1 to 327)

Reed.S.G., Skeiky,Y.A.W., Dillon,D.C., Neto,A.C., Houghton,R., vedvick,T.S., Twardzik,D.R. and Lodes,M.J.

Compounds and methods for immunotherapy and diagnosis of Patent: JP 2001501832-A 46 13-FEB-2001;

CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Compounds and methods Tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                         NETO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unclassified
                                    CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC
                                                                                   CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCG(:TAATACGAAAAGGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAT» CTCGAGGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAA (AAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
AGTGGCGCGGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAG
                                                                      CGGCACGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATI CTCGAGGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAA FAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                             RAYMOND HOUGHTON, THOMAS S VEDVICK, DANIEL R TWARDZIK,
                                                                                                                                                                                                                                          /organism='Unidentified'
                                                                                                                                                                                 /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
95 c 111 g 4
                                                                                                                      100.0%; Score 327; DB 6;
100.0%; Pred. No. 3.2e-55;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327
                                                                                                                                                                                   42
                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                             Length 327;
                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                       08/818112
ANTONIO C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 31-JAN-2002
                                                                                                                       <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e
F
                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       2 PI
CAMPOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
180
                        120
                                              120
                                                                       60
                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                 PC
                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
BD069327
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
           밁
                               S
                                                                                Ş
                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                              Matches
                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                        Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                             327;
              61
                                    13
                                                                                     .
H
                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent: JP 2
CORIXA CORP
OS Unident
PN JP 2001
PD 02-OCT-
PF 30-AUG-
                                                                                                                                                                                                                                                끊끊꾶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BD0693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BD069327.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BD069327
                                                                                                                                                                         79
                                                                                                                                                                                                                                                            source
                                                                                                                                                                         ρ
```

```
PI RAYMOND HOUGHTON, THOMAS H VEDVICK, DANIEL R TWARDZIK PC C12N15/31, CO7K14/35, A61K38/16, C12N15/62, G01N33/569, C12Q1/68, C12N5/10,
PC C12N1/21/A61K39/04, (C12N1/21, C12R1:19)
CC Strandedness: Single;
CC Topology: Linear;
CC Topology: Linear;
CC Compounds and methods for immunotherapy and diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 327)
Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., Neto, A.C., Houghton, R., Vedvick, T.H. and Twardzik, D.R.
Compounds and methods for immunotherapy and diagnosis of Patent: JP 2001517069-A 46 02-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PF 30-AUG-1996 JP 1997511464
PR 01-SEP-1995 US 08/533634 PR 01-SEP-1995 US 08/634974,05-JUN-1996 US 08/659683 PR 22-MAR-1996 US 08/680574
PI STEVEN G REED, YASIR A W SKEIKY, DAVIN C DILLON, ANTONIO CAMPOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Compounds and methods for tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JP 2001517069-A/46.
                                                                                                            CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAAATGGGCTTCTGAC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGCGCGGCGGCGGGGACGCCCCAGGCCGCGTGGTGCGCTTCCAAGAAGCAG
                      CCGGCGACCTGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCC 120
                                                                                      CGGCACGAGAGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unidentified
JP 2001517069-A/46
02-OCT-2001
                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          /organism='Unidentified'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tuberculosis
                                                                                                                                                                                                                                                                                              /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
95 c 111 g 4
                                                                                                                                                                               100.0%; Score 327; DB 6; 100.0%; Pred. No. 3.2e-55; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
1. .327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327 bp DNA 1
                                                                                                                                                                                                                                                                                                     42 t
                                                                                                                                                                                                                           Length 327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear PAT 27-AUG-2002
diagnosis of
                                                                                                                                                                                    0
                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
120
                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ဥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
```

Gaps

597

69

657

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
AF004671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                         SdD
                                                                                                                                 gene
                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AFF004671

1069 bp DNA linear BCT 09-DEC-1998 Mycobacterium tuberculosis H37Rv esat6 promoter region, L45 antigen homologous protein LHP (lhp) gene, complete cds, and early secreted antigenic target 6 kDa (esat6) gene, partial cds.

AFF004671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A Mycobacterium tuberculosis operon encoding ESAT-6 and a novel low-molecular-mass culture filtrate protein (CFP-10) Microbiology 144 (Pt 11), 3195-3203 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (19-MAY-1997) Mycobacterial Genetics Unit,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 1069)
Berthet, F.-X., Birk Rasmussen, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99061212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 1069)
Berthet, F.X., Rasmussen, P.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; Mycobacterium; Nycobacterium tuberculosis complex.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AF004671.1 GI:3253155
                                                                                                                                                                                                                                                                                                                                                                                                                               Pasteur,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9846755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATACTCGAGGGCCGACGAGGAGCAGCAGCAGCTGTCCTCGCAAA\GGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATACTCGAGGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAA\TGGGCTTCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATAAGCAGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCTAATACGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                25, rue de Dr Roux,
Location/Qualifiers
                                                                                                                                                                                                                                                                                /gene="lhp"
525. .827
                                                                                                                                                 /translation="MAEMKTDAATLAQEAGNFERISGDLKTQIDQVESTAGSLQGQWR
GAAGTAAQAAVVRFQEAANKQKQELDEISTNIRQAGVQYSRADEEQQQALSSQMGF"
                                                                                                                                                                            /codon_start=1
/trans1_table=11
/product="145 antigen homologous
/protein_id="AAC83345.1"
/db_xref="GI:3253156"
                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA"
/strain="H37Rv"
/codon_start=1
/transl_table=11
/product="early secreted
/protein_id="AAC83446.1"
                                                                                                                  gene="esat6"
                                                                                                                                                                                                                                                                  gene="lhp"
                                                                                                                                                                                                                                                                                                                          chromosome="Region
                                                                                                                                                                                                                                                                                                                                                                                   organism="Mycobacterium"
                                                            note="secreted T
                                                                        'gene="esat6"
                                                                                                        note="orf1C"
                                                                                                                                                                                                                                                    note="culture filtrate protein 10
                                                                                                                                                                                                                                                                                                                                           xref="taxon:1773"
                                                                                         .>1069
                                                                                                                                     .>1069
                                                                                                                                                                                                                                                                                                                                                                                                                            Roux, Paris,
                                                             cell
                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rosenkrands, I.,
                                                            antigen;
                                                                                                                                                                                                                                                                                                                           difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Andersen, P.
                   antigenic
                                                                                                                                                                                                                                                                                                                                                                                     tuberculosis"
                                                                                                                                                                                                                                                                                                                                                                                                                               75
                                                                                                                                                                                                                                                                                                                                                                                                                              75724,
                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                                                           RD1"
                                                                                                                                                                                                                                                      .kDa CFP-10"
                   target
                                                                                                                                                                                                                                                                                                                                                                                                                                 France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and Gicquel, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Andersen, P.
                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                              Institut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
AR169208
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                            JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                        8
                                                                           밁
                                                                                                     Ś
                                                                                                                                     밁
                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                     밁
                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                     BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Simi
Matches 318;
                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                               source
                                                                                                                                     1232
                                                                             1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538
                                                130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70
                                                                                                        70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
AR169208
                                                                                                                                                                                                                                                                                               Patent: US 6290969-A 112 18-SEP-2001;
Location/Qualifiers
1. .1616
                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 1616)
Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., C
Vedvick, T.S. and Twardzik, D.R.
Compounds and methods for immunotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                 Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR169208.1
                                                                                                                                                                                                                                                                                                                                           tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR169208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                     CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCCGACGAGGAGCAGCAGCAGCCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAAGCAGGAACTCGACGAGATCTCGACGACTATTCGTCAGGCCGGCGTCCAATACTCGA 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCGGCGGGACGGCCCAGGCCGAGGCGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                     GCGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                      TGAAAACCCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAAAAGAAACGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCGGCGGGACGGCCGCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                     ĠĊĠĊĠĠĊĠĠĠŖĸĊĠĠĊĊĠĊĊĊŔĠĠĊĊĠĊĠĠŢĠĠŢĠĊĠĊŢŢĊĊŔĸĠĸŔĠĊĸĠĊĊĸĸŢĸĸĠĊ
                                                                             TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225
                                                                                                                                                                                                                                                                     331
                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                     р
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        മ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="GI:3253157"
/translation="MTEQQWNFAGIEAAASAIQGNVTSIHSLLDEGKQSLTKLAAAWG
GSGSSBAYGQVQKWDARJTELNNALQ"
a 316 c 379 g 149 t
                                                                                                                                                                                                                                                                  /organism="unknown" 501 c 550 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:17907011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.2%;
                                                                                                                                                                                                         97.2%; Score 318; DB 6; 1
100.0%; Pred. No. 1.5e-53;
                                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 318; DB 1;
Pred. No. 1.6e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1616 bp | 1
US 6290969
                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                     234 E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                     Campos-Neto, A.,
                                                                                                                                                                                               <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                       and diagnosis
                                                                                                                                                                                                                        Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
```

0

Gaps

1411

1351

1291 129

69

Houghton, R.,

17-DEC-2001

837

717

of,

0

Gaps

0

69 1291

```
KEYWORDS
SOURCE
ORGANISM
                                               DEFINITION
ACCESSION
VERSION
                                                                                      RESULT 12
AR194881
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
                                                                                                                                                     밁
                                                                                                                                                                        ঠ
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                               ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
AR182498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Snoo
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                     1532
                                                                                                                                                                                                      1472
                                                                                                                                                                                                                                                       1412
                                                                                                                                                                                                                                                                                                          1352
                                                                                                                                                                                                                                                                                                                                                           1292
                                                                                                                                                                                                                                                                                                                                                                                                             1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1412
                                                                                                                                                                                                                                                                                                                                130
                                                                                                                                                                            310
                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190
                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                                                                                                                                                                                                                                                                                                                                                     10
                                                 AR194881
Sequence 11:
AR194881
AR194881.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AR182498
Sequence
AR182498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 1616)
Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., Vedvick, T.S. and Twardzik, D.R. Compounds and methods for diagnosis of Patent: US 6338852-A 107 15-JAN-2002; Location/Qualifiers
           Unknown
                       Unknown.
Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AR182498.1
                                                                                                                                                                                                                                                                                                                                                                                                                         AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                        GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 1471
                                                                                                                                                                                                                                                                                                          GCGCGGCGGGACGGCCCAAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                   GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                    TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                            AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCCGACGAGGAGCAGCAGCAGGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                     CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                      GGGCCGACGAGGAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 1531
                                                                                                                                                                                                                                                                              AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                            TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             331
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                           112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107 from patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="unknown"
501 c 550 g
                                                  GI:20244318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:20225705
                                                                           from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                          patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 318; DB 6;
Pred. No. 1.5e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1616
t US 6
                                                                          ns (
                                                                          6350456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6338852.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Campos-Neto, A., Houghton, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                       PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                       20-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                 249
                                                                                                                                                                                                                                                                                                          1411
                                                                                                                                                                                                                                                                                                                                   189
                                                                                                                                                                                                                                                                                                                                                                                    129
                                                                                                                                                                                                                                                                                                                                                            1351
                                                                                                                                                                                                                                                                                                                                                                                                             1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1471
                                                                                                                                                                                                                              309
                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                 TITLE
JOURNAL
FEATURES
                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                               DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
AR233153
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
FEATURES
                                  Ś
                                                           밁
                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                Query Match
Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1412
                                                               1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1232 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130 GCGCGGCGGGACGGCCCAGGCCGAGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
                                       70
                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318;
                                                                                                                                                                                                                                                                                                                                               AR233153
Sequence 107
AR233153
AR233153.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                     Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., Campos-Neto, A., Houghton, R., Vedvick, T.S., Twardzik, D.R., Lodes, M.J. and Hendrickson, R.C. Compounds and methods for diagnosis of tuberculosis Patent: US 6458366-A 107 01-CCT-2002; Location, Qualifiers 1...1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 1616)
Reed, S.G., Skeiky, Y.A.W. and Dillon, D.C.
Compositions and methods for the prevent
tuberculosis infection
Patent: US 6350456-A 112 26-FEB-2002;
Location/Qualifiers
1. 1616
                                                                                                                                                                                                                                                                                                           Unknown
                                                                                                                                                                                                                                                                                                                        Unknown.
                                                                                                                                                                                                                                                                                              Unclassified.
                           TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                            AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCGACGAGGAGCAGCAGCAGCAGCCTCTCCCAATGGGCTTCTGACCCGCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCCGACGAGCAGCAGCAGCAGCCCTCTCCCCAAATGGGCTTCTGACCCCCCTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
              TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGGCGGGACGGCCGAGGCCGCGGGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331
                                                                                                                97.2%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                გა
                                                                                                                                                                                                                                                                                                                                                                       107
                                                                                                                                                                             /organism="unknown"
501 c 550 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="unknown"
501 c 550 g
                                                                                                                                                                                                                                                                                                                                                  GI:27275589
                                                                                                                                                                                                                                                                                                                                                                         from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97.2%;
                                                                                                                                                                                                                                                                                                                                                                        patent
                                                                                                              Score 318; DB 6; ; Pred. No. 1.5e-53; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 318; DB 6;
; Pred. No. 1.5e-53;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                        : US 6
                                                                                                                                                                                                                                                                                                                                                                        16 bp D
3 6458366.
                                                                                                                                                                                234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prevention
                                                                                                                                                                               н
                                                                                                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                        Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1616
                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       treatment
```

PAT

20-DEC-2002

. 309 1471 1411

129

1351

1531

۰,

Gaps

0

129

1291

69

1351

```
RESULT 14
AX429704
                                                                           S
                                                                                                              밁
                                                                                                                                        Ś
                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                      맑
                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Snoo
                                                                                                                                                                                                                                                                                                                                                   Matches 318;
                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1352
                                                                                                               1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1412
1532
                                                                                                                                                                       1352
                                                                                                                                                                                                                                                                                         1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190
                                                                                                                                           190
                                                                                                                                                                                                   130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130
                                                                                                                                                                                                                                                            70
                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AX429704 1
Sequence 112 from Patent
AX429704
AX429704.1 GI:21540901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reed, S.G., Skeiky, Y.A., Dillon, D.C., Campos-Neto, A., Houghton, R.L., Vedvick, T.S. and Twardzik, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unidentified unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Compounds and methods for immunotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent: EP 1203817-A 112 08-MAY-2002; CORIXA CORPORATION (US)
                                                                                                                                                                                                                                               TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                        AGACCGATGCCGCTACCCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCGGCGGGGACGGCCCCAGGCCGCGGTGGTGCGCTTCCAAGAAGCNGCCAATAAGC 189
                                                                                                                                                                                                                               TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                                         AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAAAAGAAACGGAGCAA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTC/GACCCGCTAATA 1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGCGGCGGGACGGCCGCCCAGGCCGCGGTGCGCTTCCAAGAAGCAGCCAATAAGC 189
CGAAAAGAAACGGAGCAA 1549
                           CGAAAAGAAACGGAGCAA 327
                                                       GGGCCGACGAGGAGCAGCAGCCGCTGTCCTCGCAAATGGGCCTTCTGACCCCGCTAATA 1531
                                                                                 GGGCCGACGAGGAGCAGCAGCAGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                           AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                       GCGCGGCGGGGACGGCCGAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAAAAGAAACGGAGCAA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCCGACGAGGAGCAGCAGCAGCCTGTCCTCGCAAATGGGCTTCTGACCCCGCTAATA 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAGCAGGAACTCGACGAGATCTCGACGAATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                                                                                                                                                                                                          331
                                                                                                                                                                                                                                                                                                                                                 ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                          Ø
                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
501 c 550 g 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                              97.2%;
                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                 Score 318; DB 6; Length 1616;
Pred. No. 1.5e-53;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1616 bp
EP1203817.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PAT 21-JUN-2002
                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                               1471
                                                                                                                                                                                                                                                                                         1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1471
                                                                                                                                                                                                                               1351
                                                                                                                                                                                                                                                                                                                    69
                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                               á
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                S
            Search completed: January Job time: 1611 secs
                                                                                             ð
                                                                                                                            밁
                                                                                                                                                        S
                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                          S
```

RESULT 15 BD006381

15,

2004, 06:42:23

```
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Sim
Matches 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                       1472
                                                                                                                                                                                                                                                                                                                                                                                                1232
                                                                                                                                                          1412
                                                                                                                                                                                                                                        1352
1532
                                                                                                                                                                                                                                                                                                                    1292 TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG
                                                                                                                                                                                                                                                                             130
                                  310
                                                                                                                                                                                                 190
                                                                                                                   250
                                                                                                                                                                                                                                                                                                                                                           70
                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1616 bp DNA linear Compounds and methods for diagnosis of Tuberculosis. BD006381 BD006381.1 GI:18634752 JP 2001500183.2.*/~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PI RAYMOND HOUGHTON, THOMAS S. VEDVICK, DANIEL R. TWARDZIK, PI MICHAEL J LODES

PC C12N15/31, C07K14/35, C07K16/12, C12Q1/68, C12N15/62, G01N33/53

Strandedness: Single;

CC Topology: Linear;

FH Key Linear;

FH Key 1. .1616

FT source /organism='Unidentified'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 1616)
Reed, S.G., Skeiky, Y.A.W., Dillon, D.C., Neto, A.C., Houghton, R., Vedvick, T.S., Twardzik, D.R. and Lodes, M.J.
Compounds and methods for diagnosis of Tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OS Unidentified
PN JP 2001500383-A/60
PD 16-JAN-2001
PD 16-JAN-2007
PN 07-OCT-1997 JP 1998518432
PR 11-OCT-1996 US 08/729622,13-MAR-1997 US
PR 11-OCT-1996 US 08/729622,13-MAR-1997 US
PR 11-OCT-1996 US 08/729622,13-MAR-1997 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent: JP 2001500383-A 60 16-JAN-2001; CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                               GCGCGGCGGACGGCCCAGGCCCAGGCCGCGTGGTGCTCCAAGAAGCAGCCAATAAGC 189
                                                                                                                                                                                                                                                                                                                                      TGAAAACCCAGATCGACCAGGTGGAGTCGACGGCAGGTTCGTTGCAGGGCCAGTGGCGCG 129
                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCGATGCCGCTACCCTCGCGCAGGAGGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                                                                                                                                                              AGAAGCAGGAACTCGACGAGATCTCGACGAGATATTCGTCAGGCCGGCGTCCAATACTCGA 249
                                                                                                                                                                                                                                        GCGCGGCGGGACGGCCGAGGCCGCGGTGGTGCGCTTCCAAGAAGCAGCCAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                AGACCGATGCCGCTACCCTCGCGCAGGAGGCAGGTAATTTCGAGCGGATCTCCGGCGACC
                                     CGAAAAGAAACGGAGCAA 327
                                                                                                                     GGGCCGACGAGGAGCAGCAGCGCGCTGTCCTCGCAAATGGGCTTCTGACCCGCTAATA 309
                                                                                                                                                          AGAAGCAGGAACTCGACGAGATCTCGACGAATATŢCGTCAGGCCGGCGTCCAATACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97.2%; Score 318; DB 6; 1 ilarity 100.0%; Pred. No. 1.5e-53; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism='Unidentified'.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
501 c 550 g 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08/818111 PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANTONIO CAMPOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                1531
                                                                                                                                                            1471
                                                                                                                                                                                                                                        1411
                                                                                                                                                                                                                                                                                                                      1351
                                                                                                                                                                                                                                                                                                                                                                                                  1291
                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
```

IDL: SOL NEW TO JEST HILL

```
=> file biosis,caba,caplus,embase,japio,lifesci,medline,scisearch,uspatfull
=> e reed steven/au
       4 REED STEVE I/AU
E1
E2
       1 REED STEVE M/AU
       13 --> REED STEVEN/AU
E3
E4
       1 REED STEVEN ANTHONY/AU
E5
       1 REED STEVEN B/AU
E6
       1 REED STEVEN C/AU
E7
       1 REED STEVEN C SR/AU
E8
       2 REED STEVEN F/AU
E9
      413 REED STEVEN G/AU
      249 REED STEVEN I/AU
E10
E11
       1 REED STEVEN IRA/AU
       4 REED STEVEN J/AU
E12
=> s e1-e11 and tuberculo?
      135 ("REED STEVE I"/AU OR "REED STEVE M"/AU OR "REED STEVEN"/AU OR
L1
       "REED STEVEN ANTHONY"/AU OR "REED STEVEN B"/AU OR "REED STEVEN
       C"/AU OR "REED STEVEN C SR"/AU OR "REED STEVEN F"/AU OR "REED
       STEVEN G"/AU OR "REED STEVEN I"/AU OR "REED STEVEN IRA"/AU) AND
       TUBERCULO?
=> dup rem 11
PROCESSING COMPLETED FOR L1
       111 DUP REM L1 (24 DUPLICATES REMOVED)
=> s 12 and tb38?
L3
       5 L2 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y
L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:265269 CAPLUS
DN 134:309685
TI Fusion proteins of Mycobacterium ***tuberculosis***
IN Skeiky, Yasir; ***Reed, Steven***; Houghton, Raymond L.; Mcneill,
  Patricia D.; Dillon, Davin C.; Lodes, Michael L.
PA Corixa Corporation, USA
SO PCT Int. Appl., 168 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
  PATENT NO.
                 KIND DATE
                                 APPLICATION NO. DATE
PI WO 2001024820 A1 20010412 WO 2000-US28095 20001010
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
      CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
      HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
      LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
      SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
      YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
```

THIS PAGE BLANK (US. TO)

```
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
       CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                 EP 2000-970785 20001010
                 A1 20020814
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
       IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI US 1999-158338P P 19991007
  US 1999-158425P P 19991007
  WO 2000-US28095 W 20001010
AB The present invention relates to fusion proteins contg. at least two
  Mycobacterium species antigens. In particular, it relates to nucleic
  acids encoding fusion proteins that include two or more individual M.
   ***tuberculosis*** antigens, which increase serol. sensitivity of sera
  from individuals infected with ***tuberculosis***, and methods for
  their use in the diagnosis, treatment, and prevention of
   ***tuberculosis*** infection.
RE.CNT 9
           THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
       ALL CITATIONS AVAILABLE IN THE RE FORMAT
L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
    ***Reed, Steven G. ***; Skeiky, Yasir A. W.; Dillon, Davin C.;
  Campos-Neto, Antonio; Houghton, Raymond; Vedvick, Thomas S.; Twardzik,
  Daniel R.; Lodes, Michael J.; Hendrickson, Ronald C.
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
  PATENT NO. KIND DATE
                                    APPLICATION NO. DATE
PI WO 9942076
                  A2 19990826
                                   WO 1999-US3268 19990217
  WO 9942076
                  A3 19991014
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
       DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
       KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
       MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
       TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
       FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
       CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                  US 1998-72967 19980505
  US 6592877
                 B1 20030715
  CA 2337638
                 AA 19990826
                                  CA 1999-2337638 19990217
                  A1 19990906
                                  AU 1999-27663 19990217
  AU 9927663
                 A2 20010131 EP 1999-908169 19990217
  EP 1071451
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
       IE. FI
  JP 2002503683 T2 20020205
                                   JP 2000-532093 19990217
  ZA 9901303
                 A 20000315
                                 ZA 1999-1303
                                               19990218
                 B2 20031002
                                  AU 2000-71762 20001122
  AU 765833
PRAI US 1998-25197 A 19980218
```

US 1998-72967 A 19980505

THIS PAGE BLANK (US TO)

```
US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
    ***tuberculosis*** are disclosed. The compds. provided include
  polypeptides that contain at least one immunogenic portion of one or more
  Mycobacterium ***tuberculosis*** proteins and DNA mols. encoding such
  polypeptides. Such compds. may be formulated into vaccines and/or
  pharmaceutical compns. for immunization against lví. ***tuberculosis***
  infection, or may be used for the diagnosis of ***tuberculosis***.
L3 ANSWER 3 OF 5 USPATFULL on STN
     2003:213274 USPATFULL
TI Fusion proteins of mycobacterium ***tuberculosis*** antigens and
    their uses
      ***Reed, Steven G.***, Bellevue, WA, UNITED STATES
IN
    Skeiky, Yasir A., Bellevue, WA, UNITED STATES
   Dillon, Davin C., Redmond, WA, UNITED STATES
   Alderson, Mark, Bainbridge, WA, UNITED STATES
   Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA (U.S. corporation)
PI US 2003147911
                      A1 20030807
AI US 2003-359460 A1 20030205 (10)
RLI Continuation of Ser. No. US 1999-287849, filed on 7 Apr 1999, ABANDONED
   Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998,
   GRANTED, Pat. No. US 6544522 Continuation-in-part of Ser. No. US
    1998-56556, filed on 7 Apr 1998, GRANTED, Pat. No. US 6350456
    Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998,
    ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1
   Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112,
   filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
    FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 68 Drawing Page(s)
LN.CNT 3971
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    The present invention relates to fusion proteins containing at least two
   Mycobacterium ***tuberculosis*** antigens. In particular, it relates
    to bi-fusion proteins which contain two individual M.
     ***tuberculosis*** antigens, tri-fusion proteins which contain three
    M. ***tuberculosis*** antigens, tetra-fusion proteins which contain
    four M. ***tuberculosis*** antigens, and penta-fusion proteins which
    contain five M. ***tuberculosis*** antigens, and methods for their
```

THIS PAGE BLANK (US. TO)

use in the diagnosis, treatment and prevention of \*\*\*tuberculosis\*\*\*
infection.

```
L3 ANSWER 4 OF 5 USPATFULL on STN
```

AN 2003:206886 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN \*\*\*Reed, Steven G.\*\*\*, Bellevue, WA, UNITED STATES
Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Bothell, WA, UNITED STATES
Vedvick, Thomas S., Federal Way, WA, UNITED STATES
Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003143243 A1 20030731

AI US 2002-84843 A1 20020225 (10)

RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\*

L3 ANSWER 5 OF 5 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN \*\*\*Reed, Steven G.\*\*\*, Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES

25 g.c

Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Bothell, WA, UNITED STATES
Vedvick, Thomas S., Federal Way, WA, UNITED STATES
Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed-on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
=> e skeiky yasir/au
```

- E1 42 SKEIKY Y A/AU
- E2 203 SKEIKY Y A W/AU
- E3 17 --> SKEIKY YASIR/AU
- E4 13 SKEIKY YASIR A/AU
- E5 231 SKEIKY YASIR A W/AU
- E6 1 SKEIKY YASIR AW/AU
- E7 1 SKEIKY YASSIR A/AU
- E8 4 SKEIL D/AU
- E9 8 SKEIL D A/AU
- E10 6 SKEIL D D/AU
- E11 2 SKEIM P/AU
- E12 1 SKEIN E V/AU

THIS PAGE BLANK (US 'TO)

=> s e1-e7 and tuberculosis 192 ("SKEIKY Y A"/AU OR "SKEIKY Y A W"/AU OR "SKEIKY YASIR"/AU OR "SKEIKY YASIR A"/AU OR "SKEIKY YASIR A W"/AU OR "SKEIKY YASIR AW"/AU OR "SKEIKY YASSIR A"/AU) AND TUBERCULOSIS => dup rem 14 PROCESSING COMPLETED FOR L4 100 DUP REM L4 (92 DUPLICATES REMOVED) => s 15 and tb38? L6 7 L5 AND TB38? => d bib ab 1-YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y L6 ANSWER I OF 7 CAPLUS COPYRIGHT 2004 ACS on STN AN 2001:265269 CAPLUS DN 134:309685 TI Fusion proteins of Mycobacterium \*\*\*tuberculosis\*\*\* IN \*\*\*Skeiky, Yasir\*\*\*; Reed, Steven; Houghton, Raymond L.; Mcneill, Patricia D.; Dillon, Davin C.; Lodes, Michael L. PA Corixa Corporation, USA SO PCT Int. Appl., 168 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PI WO 2001024820 A1 20010412 WO 2000-US28095 20001010 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 2000-970785 20001010 EP 1229931 A1 20020814 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL PRAI US 1999-158338P P 19991007 US 1999-158425P P 19991007 WO 2000-US28095 W 20001010 AB The present invention relates to fusion proteins contg. at least two Mycobacterium species antigens. In particular, it relates to nucleic acids encoding fusion proteins that include two or more individual M. \*\*\*tuberculosis\*\*\* antigens, which increase serol. sensitivity of sera from individuals infected with \*\*\*tuberculosis\*\*\*, and methods for their use in the diagnosis, treatment, and prevention of

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

\*\*\*tuberculosis\*\*\* infection.

THIS PAGE BLANK (US. TO)

```
L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; ***Skeiky, Yasir A. W.***; Dillon, Davin C.;
  Campos-Neto, Antonio; Houghton, Raymond; Vedvick, Thomas S.; Twardzik,
  Daniel R.; Lodes, Michael J.; Hendrickson, Ronald C.
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
  PATENT NO.
                  KIND DATE
                                    APPLICATION NO. DATE
PI WO 9942076
                   A2 19990826
                                   WO 1999-US3268 19990217
  WO 9942076
                  A3 19991014
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
      KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
      FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
      CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  US 6592877
                 B1 20030715
                                 US 1998-72967 19980505
  CA 2337638
                                  CA 1999-2337638 19990217
                 AA 19990826
                 A1 19990906
                                  AU 1999-27663 19990217
  AU 9927663
                                 EP 1999-908169 19990217
  EP 1071451
                 A2 20010131
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, FI
  JP 2002503683
                  T2 20020205
                                  JP 2000-532093 19990217
  ZA 9901303
                 A 20000315
                                 ZA 1999-1303
                                              19990218
                                 AU 2000-71762 20001122
  AU 765833
                 B2 20031002
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
   ***tuberculosis*** are disclosed. The compds. provided include
  polypeptides that contain at least one immunogenic portion of one or more
  Mycobacterium ***tuberculosis*** proteins and DNA mols. encoding such
  polypeptides. Such compds. may be formulated into vaccines and/or
  pharmaceutical compns. for immunization against M. ***tuberculosis***
```

THIS PAGE BLANK (US . TO)

t

.... FRUE BLANK (US TO)

infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

L6 ANSWER 3 OF 7 USPATFULL on STN

AN 2003:250508 USPATFULL

TI Heterologous fusion protein constructs comprising a Leishmania antigen

IN \*\*\*Skeiky, Yasir\*\*\*, Bellevue, WA, UNITED STATES Brannon, Mark, Seattle, WA, UNITED STATES

Guderian, Jeffrey, Lynwood, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)

PI US 2003175294 A1 20030918

AI US 2002-98732 A1 20020313 (10)

PRAI US 2001-275837P 20010313 (60)

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 82

ECL Exemplary Claim: 1

DRWN 10 Drawing Page(s)

LN.CNT 6952

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a recombinant nucleic acid molecule encoding a fusion polypeptide, wherein the recombinant nucleic acid comprises a heterologous polynucleotide sequence encoding an antigen or an antigenic fragment, and a Leishmania polynucleotide sequence encoding a polypeptide or fragment thereof, wherein the Leishmania polynucleotide is selected from the group consisting of TSA polynucleotide, LeIF polynucleotide, M15 polynucleotide, and 6H polynucleotide. The invention also provides an expression cassette comprising the recombinant nucleic acid molecule, host cells comprising the expression cassette, compositions, fusion polypeptides, and methods of their use in diagnosis or in generating a protective immune response in hosts.

### L6 ANSWER 4 OF 7 USPATFULL on STN

AN 2003:213274 USPATFULL

TI Fusion proteins of mycobacterium \*\*\*tuberculosis\*\*\* antigens and their uses

IN Reed, Steven G., Bellevue, WA, UNITED STATES

\*\*\*Skeiky, Yasir A.\*\*\*, Bellevue, WA, UNITED STATES

Dillon, Davin C., Redmond, WA, UNITED STATES

Alderson, Mark, Bainbridge, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003147911 A1 20030807

AI US 2003-359460 A1 20030205 (10)

RLI Continuation of Ser. No. US 1999-287849, filed on 7 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998, GRANTED, Pat. No. US 6544522 Continuation-in-part of Ser. No. US 1998-56556, filed on 7 Apr 1998, GRANTED, Pat. No. US 6350456 Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969

DT Utility

FS APPLICATION

# LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 13 ECL Exemplary Claim: 1

DRWN 68 Drawing Page(s)

LN.CNT 3971

infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to fusion proteins containing at least two Mycobacterium \*\*\*tuberculosis\*\*\* antigens. In particular, it relates to bi-fusion proteins which contain two individual M.

\*\*\*tuberculosis\*\*\* antigens, tri-fusion proteins which contain three M. \*\*\*tuberculosis\*\*\* antigens, tetra-fusion proteins which contain four M. \*\*\*tuberculosis\*\*\* antigens, and penta-fusion proteins which contain five M. \*\*\*tuberculosis\*\*\* antigens, and methods for their use in the diagnosis, treatment and prevention of \*\*\*tuberculosis\*\*\*

# L6 ANSWER 5 OF 7 USPATFULL on STN

AN 2003:206886 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES

\*\*\*Skeiky, Yasir A.W.\*\*\*, Seattle, WA, UNITED STATES
Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Bothell, WA, UNITED STATES
Vedvick, Thomas S., Federal Way, WA, UNITED STATES
Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003143243 A1 20030731

AI US 2002-84843 A1 20020225 (10)

RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\*.

L6 ANSWER 6 OF 7 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES

\*\*\*Skeiky, Yasir A.W.\*\*\*, Seattle, WA, UNITED STATES
Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Botheil, WA, UNITED STATES
Vedvick, Thomas S., Federal Way, WA, UNITED STATES
Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
L6 ANSWER 7 OF 7 USPATFULL on STN
AN 2002:185292 USPATFULL
TI Compounds and methods for diagnosis and immunotherapy of
     ***tuberculosis***
    Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
      ***Skeiky, Yasir***, Seattle, WA, UNITED STATES
    Ovendale, Pamela, Everett, WA, UNITED STATES
    Jen, Shyian, Seattle, WA, UNITED STATES
    Lodes, Michael, Seattle, WA, UNITED STATES
PI US 2002098200 A1 20020725
AI US 2001-793306 A1 20010226 (9)
PRAI US 2000-223828P
                         20000808 (60)
    US 2000-185037P 20000225 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
    FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 51
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 6182
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     Compounds and methods for diagnosing ***tuberculosis*** or for
    inducing protective immunity against ***tuberculosis*** are
    disclosed. The compounds provided include polypeptides that contain at
    least one immunogenic portion of one or more Mycobacterium proteins and
    DNA molecules encoding such polypeptides. Diagnostic kits containing
    such polypeptides or DNA sequences and a suitable detection reagent may
    be used for the detection of Mycobacterium infection in patients and
    biological samples. Antibodies directed against such polypeptides are
    also provided. In addition, such compounds may be formulated into
    vaccines and/or pharmaceutical compositions for immunization against
    Mycobacterium infection.
```

#### => e dillon davin/au

- E1 1 DILLON DAVID MICHAEL/AU
- E2 1 DILLON DAVID S/AU
- E3 7 --> DILLON DAVIN/AU
- E4 233 DILLON DAVIN C/AU
- E5 2 DILLON DAVIN CLIFFORD/AU
- E6 24 DILLON DEBORAH/AU
- E7 12 DILLON DEBORAH A/AU
- E8 9 DILLON DEBORAH L/AU
- E9 3 DILLON DEBRA W/AU
- E10 2 DILLON DECEASED JOHN B/AU
- E11 1 DILLON DECEASED JOHN BRADLY/AU
- E12 10 DILLON DEIRDRE A/AU

## => s e3-e5 and tuberculosis

L7 113 ("DILLON DAVIN"/AU OR "DILLON DAVIN C"/AU OR "DILLON DAVIN CLIFF ORD"/AU) AND TUBERCULOSIS

=> dup rem 17

PROCESSING COMPLETED FOR L7

HIS PAGE BLANK (US TO)

```
L8
        94 DUP REM L7 (19 DUPLICATES REMOVED)
=> s 18 and tb38?
        5 L8 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y
L9 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:265269 CAPLUS
DN 134:309685
TI Fusion proteins of Mycobacterium ***tuberculosis***
IN Skeiky, Yasir; Reed, Steven; Houghton, Raymond L.; Mcneill, Patricia D.;
   ***Dillon, Davin C.***; Lodes, Michael L.
PA Corixa Corporation, USA
SO PCT Int. Appl., 168 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
                                    APPLICATION NO. DATE
  PATENT NO.
                  KIND DATE
PI WO 2001024820 A1 20010412 WO 2000-US28095 20001010
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
       CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
      HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
      LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
       SD. SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
       YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
       DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
       CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  EP 1229931
                 A1 20020814
                                 EP 2000-970785 20001010
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
       IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI US 1999-158338P P 19991007
   US 1999-158425P P 19991007
   WO 2000-US28095 W 20001010
AB The present invention relates to fusion proteins contg. at least two
  Mycobacterium species antigens. In particular, it relates to nucleic
   acids encoding fusion proteins that include two or more individual M.
   ***tuberculosis*** antigens, which increase serol. sensitivity of sera
   from individuals infected with ***tuberculosis***, and methods for
   their use in the diagnosis, treatment, and prevention of
   ***tuberculosis*** infection.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
       ALL CITATIONS AVAILABLE IN THE RE FORMAT
L9 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
```

DN 131:183862

\*\*\*tuberculosis\*\*\*

TI Compounds and methods for immunotherapy and diagnosis of

IN Reed, Steven G.; Skeiky, Yasir A. W.; \*\*\*Dillon, Davin C.\*\*\*;

Campos-Neto, Antonio; Houghton, Raymond; Vedvick, Thomas S.; Twardzik,

HIS PAGE BLANK (US TO)

Daniel R.; Lodes, Michael J.; Hendrickson, Ronald C. PA Corixa Corporation, USA SO PCT Int. Appl., 299 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 13 PATENT NO. KIND DATE APPLICATION NO. DATE WO 1999-US3268 19990217 PI WO 9942076 A2 19990826 WO 9942076 A3 19991014 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 6592877 B1 20030715 US 1998-72967 19980505 AA 19990826 CA 2337638 CA 1999-2337638 19990217 AU 9927663 A1 19990906 AU 1999-27663 19990217 A2 20010131 EP 1999-908169 19990217 EP 1071451 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2000-532093 19990217 JP 2002503683 T2 20020205 ZA 9901303 A 20000315 ZA 1999-1303 19990218 AU 765833 B2 20031002 AU 2000-71762 20001122 PRAI US 1998-25197 A 19980218 US 1998-72967 A 19980505 US 1995-523436 B2 19950901 US 1995-533634 B2 19950922 US 1996-620874 B2 19960322 US 1996-659683 B2 19960605 US 1996-680574 B2 19960712 WO 1996-US14674 B2 19960830 AU 1996-71586 A3 19960930 US 1996-730510 B2 19961011 US 1997-818112 A2 19970313 US 1997-942578 B2 19971001 WO 1999-US3268 W 19990217 AB Compds. and methods for inducing protective immunity against \*\*\*tuberculosis\*\*\* are disclosed. The compds. provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium \*\*\*tuberculosis\*\*\* proteins and DNA mols. encoding such polypeptides. Such compds. may be formulated into vaccines and/or pharmaceutical compns. for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\* .

# L9 ANSWER 3 OF 5 USPATFULL on STN

AN 2003:213274 USPATFULL

TI Fusion proteins of mycobacterium \*\*\*tuberculosis\*\*\* antigens and their uses

IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A., Bellevue, WA, UNITED STATES

THIS PAGE BLANK (US TO)

\*\*\*Dillon, Davin C.\*\*\*, Redmond, WA, UNITED STATES

Alderson, Mark, Bainbridge, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003147911 A1 20030807

AI US 2003-359460 A1 20030205 (10)

RLI Continuation of Ser. No. US 1999-287849, filed on 7 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998, GRANTED, Pat. No. US 6544522 Continuation-in-part of Ser. No. US 1998-56556, filed on 7 Apr 1998, GRANTED, Pat. No. US 6350456 Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 68 Drawing Page(s)

LN.CNT 3971

infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to fusion proteins containing at least two Mycobacterium \*\*\*tuberculosis\*\*\* antigens. In particular, it relates to bi-fusion proteins which contain two individual M.

\*\*\*tuberculosis\*\*\* antigens, tri-fusion proteins which contain three M. \*\*\*tuberculosis\*\*\* antigens, tetra-fusion proteins which contain four M. \*\*\*tuberculosis\*\*\* antigens, and penta-fusion proteins which contain five M. \*\*\*tuberculosis\*\*\* antigens, and methods for their

use in the diagnosis, treatment and prevention of \*\*\*tuberculosis\*\*\*

AN 2003:206886 USPATFULL

L9 ANSWER 4 OF 5 USPATFULL on STN

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES
Skeiky, Yasir A.W., Seattle, WA, UNITED STATES

\*\*\*Dillon, Davin C.\*\*\*, Redmond, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

Houghton, Raymond, Bothell, WA, UNITED STATES

Vedvick, Thomas S., Federal Way, WA, UNITED STATES

Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES

Lodes, Michael J., Seattle, WA, UNITED STATES

Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003143243 A1 20030731

AI US 2002-84843 A1 20020225 (10)

RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED

Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing-protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

L9 ANSWER 5 OF 5 USPATFULL on STN

AN 2003:195215 USPATFULL

\*\*\*tuberculosis\*\*\* .

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES

Skeiky, Yasir A.W., Seattle, WA, UNITED STATES

\*\*\*Dillon, Davin C.\*\*\*, Redmond, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

Houghton, Raymond, Bothell, WA, UNITED STATES

Vedvick, Thomas S., Federal Way, WA, UNITED STATES

Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES

Lodes, Michael J., Seattle, WA, UNITED STATES

Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

# LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

PA Corixa Corporation, USA SO PCT Int. Appl., 299 pp.

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
=> e campos neto antonio/au
E1
       1 CAMPOS NETO A */AU
E2
          CAMPOS NETO A C/AU
E3
      125 --> CAMPOS NETO ANTONIO/AU
       1 CAMPOS NETO C/AU
E4
E5
       1 CAMPOS NETO C DE M/AU
E6
       1 CAMPOS NETO C M/AU
E7
       1 CAMPOS NETO CANTIDIO DE MOURA/AU
E8
       4 CAMPOS NETO H M/AU
E9
       1 CAMPOS NETO J DE S/AU
E10
       1 CAMPOS NETO J M/AU
           CAMPOS NETO J P/AU
E11
        1
E12
        3
           CAMPOS NETO J S/AU
=> s e1-e3 and tuberculosis
L10
       61 ("CAMPOS NETO A *"/AU OR "CAMPOS NETO A C"/AU OR "CAMPOS NETO
       ANTONIO"/AU) AND TUBERCULOSIS
=> dup rem 110
PROCESSING COMPLETED FOR L10
       45 DUP REM L10 (16 DUPLICATES REMOVED)
=> s 111 and tb38?
L12
        5 L11 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y
L12 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; ***Campos-Neto, ***
      Antonio***; Houghton, Raymond; Vedvick, Thomas S.; Twardzik, Daniel R.;
  Lodes, Michael J.; Hendrickson, Ronald C.
```

```
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
  PATENT NO.
                  KIND DATE
                                    APPLICATION NO. DATE
PI WO 9942076
                  A2 19990826
                                   WO 1999-US3268 19990217
                  A3 19991014
  WO 9942076
     W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
       DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
       KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
       TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
       FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
       CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  US 6592877
                 B1 20030715
                                 US 1998-72967 19980505
                                  CA 1999-2337638 19990217
  CA 2337638
                 AA 19990826
  AU 9927663
                 A1 19990906
                                 AU 1999-27663 19990217
                                 EP 1999-908169 19990217
  EP 1071451
                 A2 20010131
     R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, FI
  JP 2002503683
                 T2 20020205
                                  JP 2000-532093 19990217
  ZA 9901303
                 A 20000315
                                 ZA 1999-1303
                                               19990218
  AU 765833
                 B2 20031002
                                 AU 2000-71762 20001122
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
   ***tuberculosis*** are disclosed. The compds. provided include
  polypeptides that contain at least one immunogenic portion of one or more
  Mycobacterium ***tuberculosis*** proteins and DNA mols. encoding such
  polypeptides. Such compds. may be formulated into vaccines and/or
  pharmaceutical compns. for immunization against M. ***tuberculosis***
  infection, or may be used for the diagnosis of ***tuberculosis*** .
L12 ANSWER 2 OF 5 USPATFULL on STN
    2003:213274 USPATFULL
AN
   Fusion proteins of mycobacterium ***tuberculosis*** antigens and
    their uses
IN Reed, Steven G., Bellevue, WA, UNITED STATES
                                                                        4.
   Skeiky, Yasir A., Bellevue, WA, UNITED STATES
   Dillon, Davin C., Redmond, WA, UNITED STATES
```

Alderson, Mark, Bainbridge, WA, UNITED STATES

\*\*\*Campos-Neto, Antonio\*\*\*, Bainbridge Island, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation) PI US 2003147911 A1 20030807 AI US 2003-359460 A1 20030205 (10) RLI Continuation of Ser. No. US 1999-287849, filed on 7 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998, GRANTED, Pat. No. US 6544522 Continuation-in-part of Ser. No. US 1998-56556, filed on 7 Apr 1998, GRANTED, Pat. No. US 6350456 Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 13 ECL Exemplary Claim: 1 DRWN 68 Drawing Page(s) LN.CNT 3971 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention relates to fusion proteins containing at least two Mycobacterium \*\*\*tuberculosis\*\*\* antigens. In particular, it relates to bi-fusion proteins which contain two individual M. \*\*\*tuberculosis\*\*\* antigens, tri-fusion proteins which contain three M. \*\*\*tuberculosis\*\*\* antigens, tetra-fusion proteins which contain four M. \*\*\*tuberculosis\*\*\* antigens, and penta-fusion proteins which contain five M. \*\*\*tuberculosis\*\*\* antigens, and methods for their use in the diagnosis, treatment and prevention of \*\*\*tuberculosis\*\*\* infection. L12 ANSWER 3 OF 5 USPATFULL on STN AN 2003:206886 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES Dillon, Davin C., Redmond, WA, UNITED STATES \*\*\*Campos-Neto, Antonio\*\*\*, Bainbridge Island, WA, UNITED STATES Houghton, Raymond, Bothell, WA, UNITED STATES Vedvick, Thomas S., Federal Way, WA, UNITED STATES Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003143243 A1 20030731

A1 20020225 (10) AI US 2002-84843

RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US. 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874,

filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED PRAI WO 1996-US14674 19960830 DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 37 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9257 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Compounds and methods for inducing protective immunity against \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one immunogenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such polypeptides. Such compounds may be formulated into vaccines and/or pharmaceutical compositions for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\* . L12 ANSWER 4 OF 5 USPATFULL on STN AN 2003:195215 USPATFULL TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\* IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES Dillon, Davin C., Redmond, WA, UNITED STATES \*\*\*Campos-Neto, Antonio\*\*\*, Bainbridge Island, WA, UNITED STATES Houghton, Raymond, Bothell, WA, UNITED STATES Vedvick, Thomas S., Federal Way, WA, UNITED STATES Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES Hendrickson, Ronald C., Seattle, WA, UNITED STATES PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation) PI US 2003135026 A1 20030717 AI US 2002-193002 A1 20020710 (10) RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

CLMN Number of Claims: 54

THIS PAGE BLANK (US. 'TO)

ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9455

### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

#### L12 ANSWER 5 OF 5 USPATFULL on STN

AN 2002:185292 USPATFULL

TI Compounds and methods for diagnosis and immunotherapy of \*\*\*tuberculosis\*\*\*

IN \*\*\*Campos-Neto, Antonio\*\*\*, Bainbridge Island, WA, UNITED STATES
 Skeiky, Yasir, Seattle, WA, UNITED STATES
 Ovendale, Pamela, Everett, WA, UNITED STATES
 Jen, Shyian, Seattle, WA, UNITED STATES
 Lodes, Michael, Seattle, WA, UNITED STATES

PI US 2002098200 A1 20020725

AI US 2001-793306 A1 20010226 (9)

PRAI US 2000-223828P 20000808 (60)

US 2000-185037P 20000225 (60)

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 51

ECL Exemplary Claim: 1

DRWN 18 Drawing Page(s)

LN.CNT 6182

### CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* or for inducing protective immunity against \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium proteins and DNA molecules encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of Mycobacterium infection in patients and biological samples. Antibodies directed against such polypeptides are also provided. In addition, such compounds may be formulated into vaccines and/or pharmaceutical compositions for immunization against Mycobacterium infection.

## => e houghton raymond/au

- E1 1 HOUGHTON RAY/AU
- E2 3 HOUGHTON RAY L/AU
- E3 46 --> HOUGHTON RAYMOND/AU
- E4 165 HOUGHTON RAYMOND L/AU
- E5 1 HOUGHTON REBECCA/AU
- E6 3 HOUGHTON RICHARD/AU

HIS PAGE BLANK (US. TO)

```
E7
       21 HOUGHTON RICHARD A/AU
E8
        4 HOUGHTON RICHARD B/AU
        2 HOUGHTON RICHARD C/AU
E9
        2 HOUGHTON RICHARD D/AU
E10
E11
        10 HOUGHTON RICHARD DAVID/AU
E12
        1 HOUGHTON RICHARD JOHN/AU
=> s e1-e4 and tuberculosis
        72 ("HOUGHTON RAY"/AU OR "HOUGHTON RAY L"/AU OR "HOUGHTON RAYMOND"/
L13
       AU OR "HOUGHTON RAYMOND L"/AU) AND TUBERCULOSIS
=> dup rem 113
PROCESSING COMPLETED FOR L13
L14
        59 DUP REM L13 (13 DUPLICATES REMOVED)
=> s 114 and tb38?
L15
        4 L14 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):y
L15 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:265269 CAPLUS
DN 134:309685
TI Fusion proteins of Mycobacterium ***tuberculosis***
IN Skeiky, Yasir; Reed, Steven; ***Houghton, Raymond L.***; Mcneill,
  Patricia D.; Dillon, Davin C.; Lodes, Michael L.
PA Corixa Corporation, USA
SO PCT Int. Appl., 168 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
  PATENT NO.
                 KIND DATE
                                   APPLICATION NO. DATE
PI WO 2001024820 A1 20010412
                                    WO 2000-US28095 20001010
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
      CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
      HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
      LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
      SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
      YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
      DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
      CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                A1 20020814
                               EP 2000-970785 20001010
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI US 1999-158338P P 19991007
  US 1999-158425P P 19991007
  WO 2000-US28095 W 20001010
AB The present invention relates to fusion proteins contg. at least two
  Mycobacterium species antigens. In particular, it relates to nucleic
  acids encoding fusion proteins that include two or more individual M.
   ***tuberculosis*** antigens, which increase serol. sensitivity of sera
```

ANK (US. TO)

from individuals infected with \*\*\*tuberculosis\*\*\*, and methods for their use in the diagnosis, treatment, and prevention of \*\*\*tuberculosis\*\*\* infection.

# RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L15 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; Campos-Neto,
  Antonio; ***Houghton, Raymond***; Vedvick, Thomas S.; Twardzik, Daniel
  R.; Lodes, Michael J.; Hendrickson, Ronald C.
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
                 KIND DATE
                                   APPLICATION NO. DATE
  PATENT NO.
PI WO 9942076
                  A2 19990826
                                  WO 1999-US3268 19990217
  WO 9942076
                 A3 19991014
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
      KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
      FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
      CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  US 6592877
                B1 20030715
                                US 1998-72967 19980505
                                 CA 1999-2337638 19990217
  CA 2337638
                 AA 19990826
                                 AU 1999-27663 19990217
  AU 9927663
                 A1 19990906
                                EP 1999-908169 19990217
  EP 1071451
                A2 20010131
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, FI
  JP 2002503683 T2 20020205
                                 JP 2000-532093 19990217
  ZA 9901303
                 A 20000315
                                ZA 1999-1303 19990218
  AU 765833
                B2 20031002
                                AU 2000-71762 20001122
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
```

THIS PAGE BLANK (US TO)

\*\*\*tuberculosis\*\*\* are disclosed. The compds. provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium \*\*\*tuberculosis\*\*\* proteins and DNA mols. encoding such polypeptides. Such compds. may be formulated into vaccines and/or pharmaceutical compns. for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

### L15 ANSWER 3 OF 4 USPATFULL on STN

AN 2003:206886 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES
 Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
 Dillon, Davin C., Redmond, WA, UNITED STATES
 Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
 \*\*\*Houghton, Raymond\*\*\*, Bothell, WA, UNITED STATES
 Vedvick, Thomas S., Federal Way, WA, UNITED STATES
 Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
 Lodes, Michael J., Seattle, WA, UNITED STATES
 Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA (U.S. corporation)

PI US 2003143243 A1 20030731

AI US 2002-84843 A1 20020225 (10)

RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\*.

L15 ANSWER 4 OF 4 USPATFULL on STN

THIS PAGE BLANK (US TO)

```
AN 2003:195215 USPATFULL
TI Compounds and methods for diagnosis of ***tuberculosis***
IN Reed, Steven G., Bellevue, WA, UNITED STATES
    Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
    Dillon, Davin C., Redmond, WA, UNITED STATES
    Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
      ***Houghton, Raymond***, Bothell, WA, UNITED STATES
    Vedvick, Thomas S., Federal Way, WA, UNITED STATES
    Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
    Lodes, Michael J., Seattle, WA, UNITED STATES
    Hendrickson, Ronald C., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003135026
                    A1 20030717
AI US 2002-193002 A1 20020710 (10)
RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED,
    Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753,
    filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US
    1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser.
    No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852
    Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996,
    ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30
    Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed
    on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US
    1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser.
    No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part
    of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation
    of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED
DT
     Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
    FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 54
```

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
=> e vedvick thomas/au
```

- E1 192 VEDVICK T S/AU
- E2 1 VEDVICK TH S/AU
- E3 14 --> VEDVICK THOMAS/AU
- E4 1 VEDVICK THOMAS A/AU
- E5 2 VEDVICK THOMAS H/AU
- E6 146 VEDVICK THOMAS S/AU
- E7 2 VEDVICK THOMAS SCOTT/AU
- E8 3 VEDVICK TOM/AU

THIS PAGE BLANK (US !TO)

```
E9
       1 VEDVIG MATT/AU
E10
        3
          VEDVIK A/AU
           VEDVIK ANDREW H/AU
E11
        5
           VEDVIK ANNE/AU
E12
=> s e1-e8 and tuberculosis
       71 ("VEDVICK T S"/AU OR "VEDVICK TH S"/AU OR "VEDVICK THOMAS"/AU
L16
       OR "VEDVICK THOMAS A"/AU OR "VEDVICK THOMAS H"/AU OR "VEDVICK
       THOMAS S"/AU OR "VEDVICK THOMAS SCOTT"/AU OR "VEDVICK TOM"/AU)
       AND TUBERCULOSIS
=> dup rem 116
PROCESSING COMPLETED FOR L16
        50 DUP REM L16 (21 DUPLICATES REMOVED)
L17
=> s 117 and tb38?
L18
        3 L17 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y
L18 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; Campos-Neto,
  Antonio; Houghton, Raymond; ***Vedvick, Thomas S.***; Twardzik, Daniel
  R.; Lodes, Michael J.; Hendrickson, Ronald C.
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
                                  APPLICATION NO. DATE
  PATENT NO.
                 KIND DATE
    _____
                                 WO 1999-US3268 19990217
PI WO 9942076 A2 19990826
  WO 9942076
                 A3 19991014
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
      KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
       MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
       TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
       FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
       CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                               US 1998-72967 19980505
                B1 20030715
  US 6592877
                                CA 1999-2337638 19990217
  CA 2337638
                 AA 19990826
                                AU 1999-27663 19990217
  AU 9927663
                 A1 19990906
                                EP 1999-908169 19990217
                A2 20010131
  EP 1071451
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
       IE, FI
  JP 2002503683 T2 20020205
                               JP 2000-532093 19990217
```

ZA 1999-1303 19990218

A 20000315

ZA 9901303

THIS PAGE BLANK (US.TO)

```
B2 20031002
                                 AU 2000-71762 20001122
  AU 765833
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
   ***tuberculosis*** are disclosed. The compds. provided include
  polypeptides that contain at least one immunogenic portion of one or more
  Mycobacterium ***tuberculosis*** proteins and DNA mols. encoding such
  polypeptides. Such compds. may be formulated into vaccines and/or
  pharmaceutical compns. for immunization against M. ***tuberculosis***
```

### L18 ANSWER 2 OF 3 USPATFULL on STN

AN 2003:206886 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

- IN Reed, Steven G., Bellevue, WA, UNITED STATES
  Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
  Dillon, Davin C., Redmond, WA, UNITED STATES
  Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
  Houghton, Raymond, Bothell, WA, UNITED STATES

  \*\*\*Vedvick, Thomas S.\*\*\*, Federal Way, WA, UNITED STATES
  Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
  Lodes, Michael J., Seattle, WA, UNITED STATES
  Hendrickson, Ronald C., Seattle, WA, UNITED STATES
- PA Corixa Corporation, Seattle, WA (U.S. corporation)
- PI US 2003143243 A1 20030731
- AI US 2002-84843 A1 20020225 (10)
- RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

THIS PAGE BLANK (US. 'TO)

CLMN Number of Claims: 37 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\*.

L18 ANSWER 3 OF 3 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES
Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Bothell, WA, UNITED STATES

\*\*\*Vedvick, Thomas S.\*\*\*, Federal Way, WA, UNITED STATES
Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54 ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits

THIS PAGE BLANK (US 'TO)

containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
=> e twardzik daniel/au
      365 TWARDZIK DR/AU
E1
       2 TWARDZIK DAN/AU
E2
E3
       15 --> TWARDZIK DANIEL/AU
E4
       1 TWARDZIK DANIEL E/AU
      121 TWARDZIK DANIEL R/AU
E5
E6
       1 TWARDZIK DANILE R/AU
          TWARDZIK E/AU
E7
       4
       7 TWARDZIK ERWIN/AU
E8
       2 TWARDZIK F C/AU
E9
E10
       18 TWARDZIK F G/AU
         TWARDZIK G/AU
E11
       6
E12
       2 TWARDZIK GEORG/AU
=> s e1-e6 and tuberculosis
       21 ("TWARDZIK D R"/AU OR "TWARDZIK DAN"/AU OR "TWARDZIK DANIEL"/AU
       OR "TWARDZIK DANIEL E"/AU OR "TWARDZIK DANIEL R"/AU OR "TWARDZIK
       DANILE R"/AU) AND TUBERCULOSIS
=> dup rem 119
PROCESSING COMPLETED FOR L19
       15 DUP REM L19 (6 DUPLICATES REMOVED)
=> s 120 and tb38?
L21
       3 L20 AND TB38?
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y
L21 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; Campos-Neto,
  Antonio; Houghton, Raymond; Vedvick, Thomas S.; ***Twardzik, Daniel***
 *** R.***; Lodes, Michael J.; Hendrickson, Ronald C.
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
                                     5
LA English
FAN.CNT 13
  PATENT NO. KIND DATE APPLICATION NO. DATE
PI WO 9942076 A2 19990826
                                WO 1999-US3268 19990217
  WO 9942076 A3 19991014
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
```

THIS PAGE BLANK (US !TO)

```
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
      FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
      CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  US 6592877
                B1 20030715
                                US 1998-72967 19980505
                                 CA 1999-2337638 19990217
  CA 2337638
                 AA 19990826
  AU 9927663
                 A1 19990906
                                 AU 1999-27663 19990217
  EP 1071451
                A2 20010131
                                EP 1999-908169 19990217
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, FI
                                 JP 2000-532093 19990217
  JP 2002503683
                T2 20020205
                A 20000315
  ZA 9901303
                                ZA 1999-1303 19990218
                B2 20031002
                                AU 2000-71762 20001122
  AU 765833
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
```

\*\*\*tuberculosis\*\*\* are disclosed. The compds. provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium \*\*\*tuberculosis\*\*\* proteins and DNA mols. encoding such polypeptides. Such compds. may be formulated into vaccines and/or pharmaceutical compns. for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

### L21 ANSWER 2 OF 3 USPATFULL on STN

AN 2003:206886 USPATFULL

Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES Dillon, Davin C., Redmond, WA, UNITED STATES Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES Houghton, Raymond, Bothell, WA, UNITED STATES Vedvick, Thomas S., Federal Way, WA, UNITED STATES \*\*\*Twardzik, Daniel R.\*\*\*, Bainbridge Island, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES Hendrickson, Ronald C., Seattle, WA, UNITED STATES

- PA Corixa Corporation, Seattle, WA (U.S. corporation)
- PI US 2003143243 A1 20030731
- AI US 2002-84843 A1 20020225 (10)
- RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1

THIS PAGE BLANK (US !TO)

Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\*.

L21 ANSWER 3 OF 3 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES
Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
Dillon, Davin C., Redmond, WA, UNITED STATES
Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
Houghton, Raymond, Bothell, WA, UNITED STATES
Vedvick, Thomas S., Federal Way, WA, UNITED STATES

\*\*\*Twardzik, Daniel R.\*\*\*, Bainbridge Island, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation

THIS PAGE BLANK (US TO)

of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 54 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9455 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided. => e lodes michael/au 12 LODES M/AU E1 E2 117 LODES M J/AU E3 5 --> LODES MICHAEL/AU **E4** 175 LODES MICHAEL J/AU E5 1 LODES MICHAEL L/AU E6 3 LODES MICHAEL P/AU E7 3 LODES RAINER/AU 1 LODES RALPH R/AU E8 E9 2 LODES U/AU 5 LODESANI C/AU E10 E11 45 LODESANI M/AU E12 2 LODESANI MARCO/AU => s e1-e6 and tuberculosis 76 ("LODES M"/AU OR "LODES M J"/AU OR "LODES MICHAEL"/AU OR "LODES L22 MICHAEL J"/AU OR "LODES MICHAEL L"/AU OR "LODES MICHAEL P"/AU) AND TUBERCULOSIS => dup rem 122 PROCESSING COMPLETED FOR L22 58 DUP REM L22 (18 DUPLICATES REMOVED) L23 => s 123 and tb38? 5 L23 AND TB38? => d bib ab 1-YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y L24 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN AN 2001:265269 CAPLUS DN 134:309685 TI Fusion proteins of Mycobacterium \*\*\*tuberculosis\*\*\* IN Skeiky, Yasir; Reed, Steven; Houghton, Raymond L.; Mcneill, Patricia D.;

Dillon, Davin C.; \*\*\*Lodes, Michael L.\*\*\*

PA Corixa Corporation, USA SO PCT Int. Appl., 168 pp. **CODEN: PIXXD2** DT Patent LA English FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE PI WO 2001024820 A1 20010412 WO 2000-US28095 20001010 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG A1 20020814 EP 2000-970785 20001010 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL PRAI US 1999-158338P P 19991007 US 1999-158425P P 19991007 WO 2000-US28095 W 20001010 AB The present invention relates to fusion proteins contg. at least two Mycobacterium species antigens. In particular, it relates to nucleic acids encoding fusion proteins that include two or more individual M. \*\*\*tuberculosis\*\*\* antigens, which increase serol. sensitivity of sera from individuals infected with \*\*\*tuberculosis\*\*\*, and methods for their use in the diagnosis, treatment, and prevention of \*\*\*tuberculosis\*\*\* infection. RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L24 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN AN 1999:549126 CAPLUS DN 131:183862 TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\* IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; Campos-Neto, Antonio: Houghton, Raymond; Vedvick, Thomas S.; Twardzik, Daniel R.; \*\*\*Lodes, Michael J.\*\*\*; Hendrickson, Ronald C. PA Corixa Corporation, USA SO PCT Int. Appl., 299 pp. **CODEN: PIXXD2** DT Patent LA English FAN.CNT 13 APPLICATION NO. DATE PATENT NO. KIND DATE PI WO 9942076 A2 19990826 WO 1999-US3268 : 19990217 WO 9942076 A3 19991014 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,

KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,

```
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
      FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
      CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                US 1998-72967 19980505
  US 6592877
                B1 20030715
                 AA 19990826
                                 CA 1999-2337638 19990217
  CA 2337638
                                AU 1999-27663 19990217
  AU 9927663
                 A1 19990906
                                EP 1999-908169 19990217
  EP 1071451
                A2 20010131
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                 T2 20020205
                                 JP 2000-532093 19990217
  JP 2002503683
                                ZA 1999-1303
  ZA 9901303
                 A 20000315
                                             19990218
                B2 20031002
                                AU 2000-71762 20001122
  AU 765833
PRAI US 1998-25197 A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
AB Compds. and methods for inducing protective immunity against
```

\*\*\*tuberculosis\*\*\* are disclosed. The compds. provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium \*\*\*tuberculosis\*\*\* proteins and DNA mols. encoding such polypeptides. Such compds. may be formulated into vaccines and/or pharmaceutical compns. for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

### L24 ANSWER 3 OF 5 USPATFULL on STN

- AN 2003:206886 USPATFULL
- TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*
- Reed, Steven G., Bellevue, WA, UNITED STATES
   Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
   Dillon, Davin C., Redmond, WA, UNITED STATES
   Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
   Houghton, Raymond, Bothell, WA, UNITED STATES
   Vedvick, Thomas S., Federal Way, WA, UNITED STATES
   Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
   \*\*\*Lodes, Michael J.\*\*\*, Seattle, WA, UNITED STATES
   Hendrickson, Ronald C., Seattle, WA, UNITED STATES
- PA Corixa Corporation, Seattle, WA (U.S. corporation)
- PI US 2003143243 A1 20030731
- AI US 2002-84843 A1 20020225 (10)
- RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112,

THIS PAGE BLANK (US TO)

filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED

PRAI WO 1996-US14674 19960830

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include
polypeptides that contain at least one immunogenic portion of one or
more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such
polypeptides. Such compounds may be formulated into vaccines and/or
pharmaceutical compositions for immunization against M.

\*\*\*\*the productive infection and for the diagrams of

\*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of

\*\*\*tuberculosis\*\*\* .

## L24 ANSWER 4 OF 5 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

Reed, Steven G., Bellevue, WA, UNITED STATES
 Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
 Dillon, Davin C., Redmond, WA, UNITED STATES
 Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
 Houghton, Raymond, Bothell, WA, UNITED STATES
 Vedvick, Thomas S., Federal Way, WA, UNITED STATES
 Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
 \*\*\*Lodes, Michael J.\*\*\*, Seattle, WA, UNITED STATES
 Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

L24 ANSWER 5 OF 5 USPATFULL on STN

AN 2002:185292 USPATFULL

TI Compounds and methods for diagnosis and immunotherapy of \*\*\*tuberculosis\*\*\*

IN Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
 Skeiky, Yasir, Seattle, WA, UNITED STATES
 Ovendale, Pamela, Everett, WA, UNITED STATES
 Jen, Shyian, Seattle, WA, UNITED STATES
 \*\*\*Lodes, Michael\*\*\*, Seattle, WA, UNITED STATES

PI US 2002098200 A1 20020725

AI US 2001-793306 A1 20010226 (9)

PRAI US 2000-223828P 20000808 (60)

US 2000-185037P 20000225 (60)

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 51

ECL Exemplary Claim: 1

DRWN 18 Drawing Page(s)

LN.CNT 6182

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* or for inducing protective immunity against \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one immunogenic portion of one or more Mycobacterium proteins and DNA molecules encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of Mycobacterium infection in patients and biological samples. Antibodies directed against such polypeptides are also provided. In addition, such compounds may be formulated into vaccines and/or pharmaceutical compositions for immunization against Mycobacterium infection.

<sup>=&</sup>gt; e hendrickson ronald/au

```
E2
       2 HENDRICKSON RON C/AU
E3
       0 --> HENDRICKSON RONALD/AU
E4
      38 HENDRICKSON RONALD C/AU
       1 HENDRICKSON RONALD CHARLES/AU
E5
E6
       2 HENDRICKSON RONALD H/AU
E7
       1 HENDRICKSON RONALD R/AU
E8
       2 HENDRICKSON RONALD W/AU
       1 HENDRICKSON RONEE/AU
E9
E10
       1 HENDRICKSON ROXANN M/AU
          HENDRICKSON ROY/AU
E11
       1
          HENDRICKSON ROY V/AU
E12
       1
=> s e2-e8 and tuberculosis
       17 ("HENDRICKSON RON C"/AU OR "HENDRICKSON RONALD"/AU OR "HENDRICKS
       ON RONALD C"/AU OR "HENDRICKSON RONALD CHARLES"/AU OR "HENDRICKS
       ON RONALD H"/AU OR "HENDRICKSON RONALD R"/AU OR "HENDRICKSON
       RONALD W"/AU) AND TUBERCULOSIS
=> dup rem 125
PROCESSING COMPLETED FOR L25
       11 DUP REM L25 (6 DUPLICATES REMOVED)
L26
=> s 126 and tb38?
       3 L26 AND TB38?
L27
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y
L27 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:549126 CAPLUS
DN 131:183862
TI Compounds and methods for immunotherapy and diagnosis of
   ***tuberculosis***
IN Reed, Steven G.; Skeiky, Yasir A. W.; Dillon, Davin C.; Campos-Neto,
  Antonio; Houghton, Raymond; Vedvick, Thomas S.; Twardzik, Daniel R.;
  Lodes, Michael J.; ***Hendrickson, Ronald C.***
PA Corixa Corporation, USA
SO PCT Int. Appl., 299 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13
  PATENT NO. KIND DATE
                                APPLICATION NO. DATE
  -----
                        ______
                             WO 1999-US3268 19990217
PI WO 9942076 A2 19990826
              A3 19991014
  WO 9942076
    W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
      KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
      TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
      FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
      CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  US 6592877
               B1 20030715 US 1998-72967 19980505
```

```
CA 1999-2337638 19990217
  CA 2337638
                AA 19990826
  AU 9927663
                A1 19990906
                               AU 1999-27663 19990217
  EP 1071451
                A2 20010131
                               EP 1999-908169 19990217
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, FI
                                JP 2000-532093 19990217
  JP 2002503683
                T2 20020205
  ZA 9901303
                A 20000315
                               ZA 1999-1303 19990218
                               AU 2000-71762 20001122
  AU 765833
                B2 20031002
PRAI US 1998-25197
                   A 19980218
  US 1998-72967 A 19980505
  US 1995-523436 B2 19950901
  US 1995-533634 B2 19950922
  US 1996-620874 B2 19960322
  US 1996-659683 B2 19960605
  US 1996-680574 B2 19960712
  WO 1996-US14674 B2 19960830
  AU 1996-71586 A3 19960930
  US 1996-730510 B2 19961011
  US 1997-818112 A2 19970313
  US 1997-942578 B2 19971001
  WO 1999-US3268 W 19990217
```

AB Compds. and methods for inducing protective immunity against

\*\*\*tuberculosis\*\*\* are disclosed. The compds. provided include
polypeptides that contain at least one immunogenic portion of one or more
Mycobacterium \*\*\*tuberculosis\*\*\* proteins and DNA mols. encoding such
polypeptides. Such compds. may be formulated into vaccines and/or
pharmaceutical compns. for immunization against M. \*\*\*tuberculosis\*\*\*
infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\*.

### L27 ANSWER 2 OF 3 USPATFULL on STN

AN 2003:206886 USPATFULL

- TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*
- Reed, Steven G., Bellevue, WA, UNITED STATES
   Skeiky, Yasir A.W., Seattle, WA, UNITED STATES
   Dillon, Davin C., Redmond, WA, UNITED STATES
   Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES
   Houghton, Raymond, Bothell, WA, UNITED STATES
   Vedvick, Thomas S., Federal Way, WA, UNITED STATES
   Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES
   Lodes, Michael J., Seattle, WA, UNITED STATES
   \*\*\*Hendrickson, Ronald C.\*\*\*, Seattle, WA, UNITED STATES
- PA Corixa Corporation, Seattle, WA (U.S. corporation)
- PI US 2003143243 A1 20030731
- AI US 2002-84843 A1 20020225 (10)
- RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US

1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED PRAI WO 1996-US14674 19960830 DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 37 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s) LN.CNT 9257 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Compounds and methods for inducing protective immunity against \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one immunogenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins and DNA molecules encoding such polypeptides. Such compounds may be formulated into vaccines and/or pharmaceutical compositions for immunization against M. \*\*\*tuberculosis\*\*\* infection, or may be used for the diagnosis of \*\*\*tuberculosis\*\*\* . L27 ANSWER 3 OF 3 USPATFULL on STN AN 2003:195215 USPATFULL TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\* IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES Dillon, Davin C., Redmond, WA, UNITED STATES Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES Houghton, Raymond, Bothell, WA, UNITED STATES Vedvick, Thomas S., Federal Way, WA, UNITED STATES Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES \*\*\*Hendrickson, Ronald C.\*\*\*, Seattle, WA, UNITED STATES PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation) PI US 2003135026 A1 20030717 AI US 2002-193002 A1 20020710 (10) RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED, Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30 Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54 ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)
LN.CNT 9455
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds and methods for diagnosing \*\*\*tuberculosis\*\*\* are disclosed. The compounds provided include polypeptides that contain at least one antigenic portion of one or more M. \*\*\*tuberculosis\*\*\* proteins, and DNA sequences encoding such polypeptides. Diagnostic kits containing such polypeptides or DNA sequences and a suitable detection reagent may be used for the detection of M. \*\*\*tuberculosis\*\*\* infection in patients and biological samples. Antibodies directed against such polypeptides are also provided.

```
L3 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:265269 CAPLUS
DN 134:309685
TI Fusion proteins of Mycobacterium ***tuberculosis***
IN Skeiky, Yasir; Reed, Steven; Houghton, Raymond L.; Mcneill, Patricia D.;
  Dillon, Davin C.; Lodes, Michael L.
PA Corixa Corporation, USA
SO PCT Int. Appl., 168 pp.
  CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
  PATENT NO. KIND DATE
                                 APPLICATION NO. DATE
  ______
PI WO 2001024820 A1 20010412 WO 2000-US28095 20001010
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
      CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
      HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
      LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
      SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
      YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
    RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
      DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
      CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
  EP 1229931
                A1 20020814 EP 2000-970785 20001010
    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
      IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI US 1999-158338P P 19991007
  US 1999-158425P P 19991007
  WO 2000-US28095 W 20001010
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
       ALL CITATIONS AVAILABLE IN THE RE FORMAT
L3 ANSWER 2 OF 16 USPATFULL on STN
AN 2003:250508 USPATFULL
TI Heterologous fusion protein constructs comprising a Leishmania antigen
IN Skeiky, Yasir, Bellevue, WA, UNITED STATES
   Brannon, Mark, Seattle, WA, UNITED STATES
   Guderian, Jeffrey, Lynwood, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 2003175294 A1 20030918
AI US 2002-98732 A1 20020313 (10)
PRAI US 2001-275837P 20010313 (60)
DT Utility
FS APPLICATION
LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH
   FLOOR, SAN FRANCISCO, CA, 94111-3834
CLMN Number of Claims: 82
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 6952
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L3 ANSWER 3 OF 16 USPATFULL on STN
AN 2003:234838 USPATFULL
```

THIS PAGE BLANK (US.TO)

TI Compounds for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\* and methods of their use

IN Alderson, Mark Raymond, Bainbridge Island, WA, United States

Dillon, Davin C., Redmond, WA, United States

Skeiky, Yasir A. W., Seattle, WA, United States

Campos-Neto, Antonio, Bainbridge Island, WA, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6613881 B1 20030902

AI US 1998-73010

19980505 (9)

RLI Continuation-in-part of Ser. No. US 1997-859381, filed on 20 May 1997, now abandoned

DT Utility

FS GRANTED

EXNAM Primary Examiner: Marschel, Ardin H.

LREP Townsend and Townsend and Crew LLP

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 4 Drawing Figure(s); 2 Drawing Page(s)

LN.CNT 2860

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L3 ANSWER 4 OF 16 USPATFULL on STN

AN 2003:231636 USPATFULL

TI Vaccines

IN Friede, Martin, Farnham, UNITED KINGDOM

Garcon, Nathalie, Wavre, BELGIUM

Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM

Hermand, Philippe, Court-Saint-Etienne, BELGIUM

PA SmithKline Beecham Biologicals s.a. (non-U.S. corporation)

PI US 2003161834 A1 20030828

AI US 2003-379164 A1 20030303 (10)

RLI Division of Ser. No. US 2000-690921, filed on 18 Oct 2000, GRANTED, Pat.

No. US 6544518 Continuation-in-part of Ser. No. WO 2000-EP2920, filed on

4 Apr 2000, UNKNOWN Continuation-in-part of Ser. No. US 1999-301829,

filed on 29 Apr 1999, GRANTED, Pat. No. US 6558670

PRAI GB 1999-8885 19990419

DT Utility

FS APPLICATION

LREP GLAXOSMITHKLINE, Corporate Intellectual Property- UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939

CLMN Number of Claims: 29

ECL Exemplary Claim: 1

DRWN 12 Drawing Page(s)

LN.CNT 1737

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L3 ANSWER 5 OF 16 USPATFULL on STN

AN 2003:213274 USPATFULL

TI Fusion proteins of mycobacterium \*\*\*tuberculosis\*\*\* antigens and their uses

IN Reed, Steven G., Bellevue, WA, UNITED STATES

Skeiky, Yasir A., Bellevue, WA, UNITED STATES

Dillon, Davin C., Redmond, WA, UNITED STATES

Alderson, Mark, Bainbridge, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

CLMN Number of Claims: 44
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 3101
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

THIS PAGE BLANK (US:TO)

EXNAM Primary Examiner: Swartz, Rodney P. LREP Townsend and Townsend and Crew LLP

CLMN Number of Claims: 93

ECL Exemplary Claim: 1

DRWN 11 Drawing Figure(s); 13 Drawing Page(s)

LN.CNT 2650

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

### L3 ANSWER 15 OF 16 USPATFULL on STN

AN 2001:157807 USPATFULL

TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, United States

Skeiky, Yasir A. W., Seattle, WA, United States

Dillon, Davin C., Redmond, WA, United States

Campos-Neto, Antonio, Bainbridge Island, WA, United States

Houghton, Raymond, Bothell, WA, United States

Vedvick, Thomas S., Federal Way, WA, United States

Twardzik, Daniel R., Bainbridge Island, WA, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6290969 B1 20010918

AI US 1997-818112 19970313 (8)

RLI Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996

Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996

Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996

Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996,

now abandoned Continuation-in-part of Ser. No. US 1995-533634, filed on

22 Sep 1995, now abandoned Continuation-in-part of Ser. No. US

1995-523436, filed on 1 Sep 1995, now abandoned

DT Utility

FS GRANTED

EXNAM Primary Examiner: Swartz, Rodney P.

LREP Townsend & Townsend & Crew LLP

CLMN Number of Claims: 98

ECL Exemplary Claim: 1

DRWN 7 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 2142

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

# L3 ANSWER 16 OF 16 USPATFULL on STN

AN 2001:128900 USPATFULL

TI COMPOUNDS FOR DIAGNOSIS OF \*\*\*TUBERCULOSIS\*\*\* AND METHODS OF THEIR USE

IN ALDERSON, MARK R., BAINBRIDGE ISLAND, WA, United States

DILLON, DAVIN C., REDMOND, WA, United States

SKEIKY, YASIR A.W., SEATTLE, WA, United States

CAMPOS-NETO, ANTONIO, BAINBRIDGE ISLAND, WA, United States

PI US 2001012888 A1 20010809

US 6555653 B2 20030429

AI US 1998-73009 A1 19980505 (9)

RLI Continuation-in-part of Ser. No. US 1997-858998, filed on 20 May 1997, ABANDONED

DT Utility

FS APPLICATION

LREP PENNIE & EDMONDS, 1155 AVENUE OF THE AMERICAS, NEW YORK, NY, 100362711

ECL Exemplary Claim: 1 DRWN 23 Drawing Figure(s); 14 Drawing Page(s) LN.CNT 6417 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L3 ANSWER 13 OF 16 USPATFULL on STN AN 2002:16583 USPATFULL TI FUSION PROTEINS OF MYCOBACTERIUM \*\*\*TUBERCULOSIS\*\*\* ANTIGENS AND THEIR USES IN REED, STEVEN G., BELLEVUE, WA, UNITED STATES SKEIKY, YASIR A., SEATTLE, WA, UNITED STATES DILLON, DAVIN C., REDMOND, WA, UNITED STATES ALDERSON, MARK, BAINBRIDGE ISLAND, WA, UNITED STATES CAMPOS-NETO, ANTONIO, BAINBRIDGE, WA, UNITED STATES PI US 2002009459 A1 20020124 B2 20030930 US 6627198 AI US 1999-287849 A1 19990407 (9) RLI Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998, PENDING Continuation-in-part of Ser. No. US 1998-56556, filed on 7 Apr 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 DT Utility FS APPLICATION LREP ANNETTE S. PARENT, TOWNSEND AND TOWNSEND AND CREW LLP, TWO EMBARCADERO CENTER, 8TH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 13 ECL Exemplary Claim: 1 DRWN 47 Drawing Page(s) LN.CNT 1524 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L3 ANSWER 14 OF 16 USPATFULL on STN AN 2002:9651 USPATFULL TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\* IN Reed, Steven G., Bellevue, WA, United States Skeiky, Yasir A. W., Seattle, WA, United States Dillon, Davin C., Redmond, WA, United States Campos-Neto, Antonio, Bainbridge Island, WA, United States Houghton, Raymond, Bothell, WA, United States Vedvick, Thomas S., Federal Way, WA, United States Twardzik, Daniel R., Bainbridge Island, WA, United States PA Corixa Corporation, Seattle, WA, United States (U.S. corporation) B1 20020115 PI US 6338852 AI US 1997-818111 19970313 (8) RLI Continuation-in-part of Ser. No. US 729622 Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996 Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996 Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, now abandoned Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, now abandoned Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, now abandoned DT Utility

FS GRANTED

Ovendale, Pamela, Everett, WA, UNITED STATES Jen, Shyian, Seattle, WA, UNITED STATES Lodes, Michael, Seattle, WA, UNITED STATES PI US 2002098200 A1 20020725 AI US 2001-793306 A1 20010226 (9) PRAI US 2000-223828P 20000808 (60) US 2000-185037P 20000225 (60) DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 51 ECL Exemplary Claim: 1 DRWN 18 Drawing Page(s)

LN.CNT 6182

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 11 OF 16 USPATFULL on STN

AN 2002:156980 USPATFULL

TI METHOD FOR THE ISOLATION OF NOVEL ANTIGENS

IN SKEIKY, YASIR A.W., SEATTLE, WA, UNITED STATES DILLON, DAVIN C., REDMOND, WA, UNITED STATES ALDERSON, MARK R., BAINBRIDGE ISLAND, WA, UNITED STATES

PA Jane E. R. Potter, Seattle, WA, 98104 (U.S. corporation)

PI US 2002081579 A1 20020627

AI US 1998-23588 A1 19980213 (9)

DT Utility

FS APPLICATION

LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN 5 Drawing Page(s)

LN.CNT 1815

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 12 OF 16 USPATFULL on STN

AN 2002:39663 USPATFULL

Compositions and methods for the prevention and treatment of M. \*\*\*tuberculosis\*\*\* infection

IN Reed, Steven G., Bellevue, WA, United States Skeiky, Yasir A. W., Seattle, WA, United States Dillon, Davin C., Redmond, WA, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

B1 20020226 PI US 6350456

AI US 1998-56556 19980407 (9)

RLI Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, now abandoned Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, now abandoned Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997

DT Utility

FS **GRANTED** 

EXNAM Primary Examiner: Swartz, Rodney P LREP Townsend and Townsend and Crew LLP

CLMN Number of Claims: 10

Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999

PRAI GB 1999-8885 19990419

DT Utility

FS GRANTED

EXNAM Primary Examiner: Scheiner, Laurie

LREP Sutton, Jeffery A., Venetianer, Stephen, Kinzig, Charles M.

CLMN Number of Claims: 15 ECL Exemplary Claim: 1

DRWN 15 Drawing Figure(s); 12 Drawing Page(s)

LN.CNT 1721

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

#### L3 ANSWER 9 OF 16 USPATFULL on STN

AN 2002:254057 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, United States
Skeiky, Yasir A. W., Seattle, WA, United States
Dīlion, Davin C., Redmond, WA, United States
Campos-Neto, Antonio, Bainbridge Island, WA, United States
Houghton, Raymond, Bothell, WA, United States
Vedvick, Thomas S., Federal Way, WA, United States
Twardzik, Daniel R., Bainbridge Island, WA, United States
Lodes, Michael J., Seattle, WA, United States
Hendrickson, Ronald C., Seattle, WA, United States

PA Corixa Corporation, Seattle, WA, United States (U.S. corporation)

PI US 6458366 B1 20021001

AI US 1998-72596 19980505 (9)

RLI Continuation-in-part of Ser. No. US 1998-24753, filed on 18 Feb 1998, now abandoned Continuation-in-part of Ser. No. US 1997-942341, filed on 1 Oct 1997, now abandoned Continuation-in-part of Ser. No. US 1997-818111, filed on 13 Mar 1997 Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996, now abandoned Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, now abandoned Continuation-in-part of Ser. No. US 1996-658800, filed on 5 Jun 1996, now abandoned Continuation-in-part of Ser. No. US 1996-620280, filed on 22 Mar 1996, now abandoned Continuation-in-part of Ser. No. US 1995-532136, filed on 22 Sep 1995, now abandoned Continuation of Ser. No. US 1995-523435, filed on 1 Sep 1995, now abandoned

PRAI WO 1996-US14675 19960830

DT Utility

FS GRANTED

EXNAM Primary Examiner: Swartz, Rodney P.

LREP Townsend & Townsend & Crew, LLP

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN 23 Drawing Figure(s); 19 Drawing Page(s)

LN.CNT 8789

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

# L3 ANSWER 10 OF 16 USPATFULL on STN

AN 2002:185292 USPATFULL

TI Compounds and methods for diagnosis and immunotherapy of \*\*\*tuberculosis\*\*\*

IN Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES Skeiky, Yasir, Seattle, WA, UNITED STATES

THIS PAGE BLANK (US. 70)

ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 9257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L3 ANSWER 7 OF 16 USPATFULL on STN

AN 2003:195215 USPATFULL

TI Compounds and methods for diagnosis of \*\*\*tuberculosis\*\*\*

IN Reed, Steven G., Bellevue, WA, UNITED STATES

Skeiky, Yasir A.W., Seattle, WA, UNITED STATES

Dillon, Davin C., Redmond, WA, UNITED STATES

Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES

Houghton, Raymond, Bothell, WA, UNITED STATES

Vedvick, Thomas S., Federal Way, WA, UNITED STATES

Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES

Lodes, Michael J., Seattle, WA, UNITED STATES

Hendrickson, Ronald C., Seattle, WA, UNITED STATES

PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

PI US 2003135026 A1 20030717

AI US 2002-193002 A1 20020710 (10)

RLI Continuation of Ser. No. US 1998-72596, filed on 5 May 1998, GRANTED,

Pat. No. US 6458366 Continuation-in-part of Ser. No. US 1998-24753,

filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US

1997-942341, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser.

No. US 1997-818111, filed on 13 Mar 1997, GRANTED, Pat. No. US 6338852

Continuation-in-part of Ser. No. US 1996-729622, filed on 11 Oct 1996,

ABANDONED A 371 of International Ser. No. WO 1996-US14675, filed on 30

Aug 1996, PENDING A 371 of International Ser. No. US 1996-680574, filed

on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US

1996-658800, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser.

No. US 1996-620280, filed on 22 Mar 1996, ABANDONED Continuation-in-part

of Ser. No. US 1995-532136, filed on 22 Sep 1995, ABANDONED Continuation

of Ser. No. US 1995-523435, filed on 1 Sep 1995, ABANDONED

DT Utility

FS APPLICATION

LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 54

ECL Exemplary Claim: 1

DRWN 19 Drawing Page(s)

LN.CNT 9455

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L3 ANSWER 8 OF 16 USPATFULL on STN

- AN 2003:95812 USPATFULL
- TI Vaccines
- IN Friede, Martin, Farnham, UNITED KINGDOM

Garcon, Nathalie, Wavre, BELGIUM

Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM

Hermand, Philippe, Court-Saint-Etienne, BELGIUM

PA SmithKline Beecham Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)

- PI US 6544518 B1 20030408
- AI US 2000-690921 20001018 (9)
- RLI Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000

PA Corixa Corporation, Seattle, WA (U.S. corporation) PI US 2003147911 A1 20030807 AI US 2003-359460 A1 20030205 (10) RLI Continuation of Ser. No. US 1999-287849, filed on 7 Apr 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-223040, filed on 30 Dec 1998, GRANTED, Pat. No. US 6544522 Continuation-in-part of Ser. No. US 1998-56556, filed on 7 Apr 1998, GRANTED, Pat. No. US 6350456 Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 DT Utility FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 13 ECL Exemplary Claim: 1 DRWN 68 Drawing Page(s) LN.CNT 3971 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L3 ANSWER 6 OF 16 USPATFULL on STN AN 2003:206886 USPATFULL TI Compounds and methods for immunotherapy and diagnosis of \*\*\*tuberculosis\*\*\* IN Reed, Steven G., Bellevue, WA, UNITED STATES Skeiky, Yasir A.W., Seattle, WA, UNITED STATES Dillon, Davin C., Redmond, WA, UNITED STATES Campos-Neto, Antonio, Bainbridge Island, WA, UNITED STATES Houghton, Raymond, Bothell, WA, UNITED STATES Vedvick, Thomas S., Federal Way, WA, UNITED STATES Twardzik, Daniel R., Bainbridge Island, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES Hendrickson, Ronald C., Seattle, WA, UNITED STATES PA Corixa Corporation, Seattle, WA (U.S. corporation) PI US 2003143243 A1 20030731 AI US 2002-84843 A1 20020225 (10) RLI Continuation of Ser. No. US 1998-72967, filed on 5 May 1998, PENDING Continuation-in-part of Ser. No. US 1998-25197, filed on 18 Feb 1998, ABANDONED Continuation-in-part of Ser. No. US 1997-942578, filed on 1 Oct 1997, ABANDONED Continuation-in-part of Ser. No. US 1997-818112, filed on 13 Mar 1997, GRANTED, Pat. No. US 6290969 Continuation-in-part of Ser. No. US 1996-730510, filed on 11 Oct 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-680574, filed on 12 Jul 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-659683, filed on 5 Jun 1996, ABANDONED Continuation-in-part of Ser. No. US 1996-620874, filed on 22 Mar 1996, ABANDONED Continuation-in-part of Ser. No. US 1995-533634, filed on 22 Sep 1995, ABANDONED Continuation-in-part of Ser. No. US 1995-523436, filed on 1 Sep 1995, ABANDONED PRAI WO 1996-US14674 19960830 DT Utility APPLICATION FS LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834

CLMN Number of Claims: 37

THIS PAGE BLANK (US 'TO)